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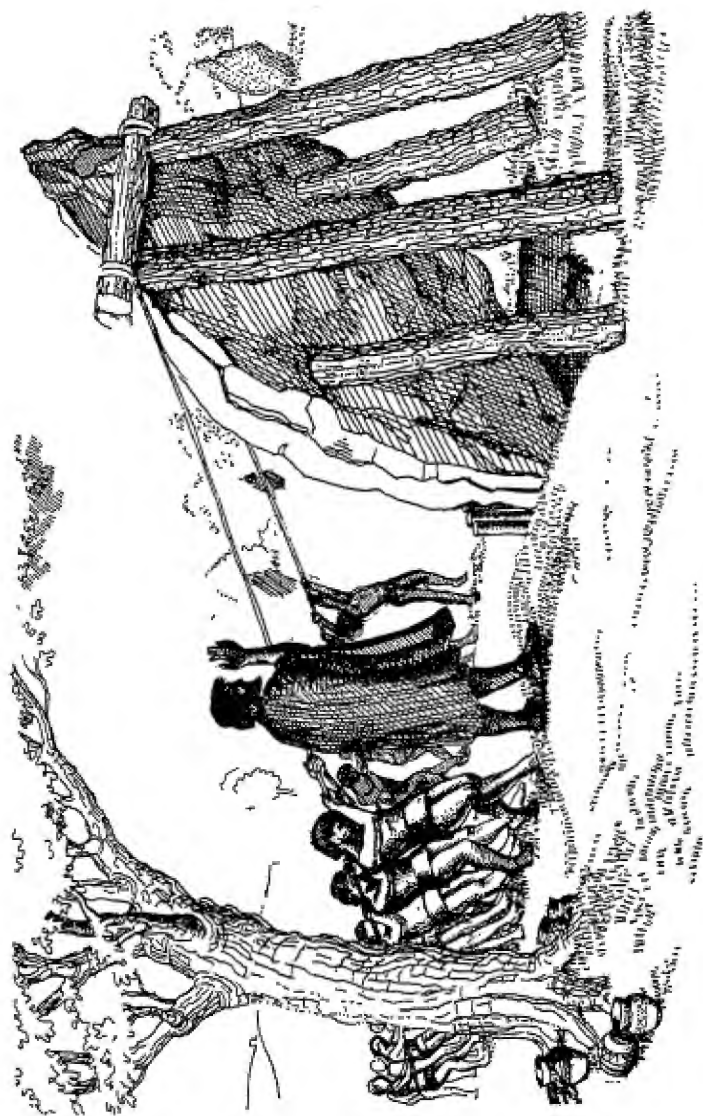
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Finding Out About  
**STONE AGE BRITAIN**

1973 by

H. E. L. MELLERSH, F.L.S.

*Illustrated by*

SALLY MELLERSH



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# I

## ICE CHALLENGE

“LET US,” might have said a man of the Early Stone Age wandering fancy free about Europe, “let us take our hollowed-out tree, which later people will call a boat, and cross the rivers that later people will call the North Sea and the English Channel.”

Of course he would not have talked like that, particularly about the North Sea and the English Channel. But if he was one of the clever ones, and a leader, he might well have prevailed upon his big family or little tribe—much the same thing—to make a boat or boats and to cross no more than a river or two to what we now know as the British Isles. *That* is the point: we in this country were once joined to the mainland. This means that the first Stone Age men who lived in Britain were no less Europeans than those who lived in France and Spain and Germany, and all of them of course were no more aware that they lived in Europe than a spider spinning his web on a fine summer morning is aware that he is doing it in your garden and not

your neighbour's. Neither the spider nor the Stone Age Briton would have bothered.

When was it that Britain was joined on to Europe? Answer: for more thousands of years than we need worry about, and until about 7000 B.C., when the waters rose and cut it off. Why did they do that? The answer: because of the Ice Ages and the ending of the Ice Ages. And how do people know about the Ice Ages? To that one we will say provisionally that ice is hard, ruthless stuff and leaves traces of its activities—and activities strangely enough is the right word—and that certain inquisitive and patient people, in particular two nineteenth-century Swiss gentlemen called Mr. Penck and Mr. Bruckner, have learned a great deal from those traces.

But we are going a little too fast. Let us first do some defining of terms and at the same time make it clear to ourselves what part of the world's history we are talking about.

*Britain?* That is easy. What is now called England, Ireland, Scotland and Wales, the lands which stick out like a knob from the main mass of Europe at the beginning of our story and which become two separate islands halfway through it (more than halfway in time, less than halfway in what there is to tell).

*Stone Age?* The age, the time, the years during which human beings, in order to help themselves become "lords of all they surveyed" (or in drier,

scientific terms "gain control of their environment") used as their main tool the stone or rock that they found lying about. That is, we might say, as opposed to using the power of steam to do their work for them, as in the nineteenth-century Steam Age, or the power of the split atom in the age we are just entering, the Atomic Age. The Stone Age was followed, as most people know, by what has been christened the Bronze Age, when bronze (copper with a hardening of tin fused into it) became the most prized material for tools and weapons. The Bronze Age was followed by the Iron Age. Do not forget, however, that those are man-made terms, terms invented by the gentlemen whose discoveries we are in part going to follow, and invented so that they might keep their minds tidy and make their facts and theories clear to those that followed. A day did not arrive when everybody suddenly said: "Let's stop using stone and use bronze!" Indeed, far from it. Apart from the fact that men in some parts of the world were using stone while in other more advanced parts they were already using bronze and even iron, there must have been many people—the conservative-minded, the die-hards—who preferred to go on using stone. The terms Stone Age and the rest are there for our convenience only, and we must not be too closely bound by them or think that within themselves they are completely homo-

geneous, which is a Greek-derived word for "all of a piece".

The Stone Age was most certainly not all of a piece. It was very long, and men learnt a great deal while they were in it (or more accurately while we now consider them to have been in it). For instance, during the long centuries in which they were using stone they progressed beyond merely finding it, to searching for it, swopping it and trading in it, finally actually mining for it, just as the steam age mined for coal and the atomic age—at the start—for uranium. More importantly, the people of the Stone Age learnt to change completely their way of life while they still were stone users, to effect in fact a "revolution" just about as important as the Industrial Revolution. More of that later. It divides the Stone Age into two parts, the Old Stone Age and the New—and the division is really a more important one than the division between the Stone Age and the Bronze. For instance, if you had been a member of that extraordinary expedition that went all the way to South Wales from the hub and centre of Britain around Stonehenge, in order to drag back special stones for your building work—and if you *had* been on it you would have felt as proud and important as if you had been with Fuchs to the South Pole—then you would probably have been more different in your way of life from the very first men of the Stone Age than the farmer on Salisbury Plain a couple of hundred years ago

was different from these stone-shifters of Stonehenge.

In other words, the Stone Age lasted a long time, and a great deal of progress was made by mankind within its span. *When* did it happen? It began when man began. And it ended when, as we have said, the most favoured material for making tools changed from stone to metal. The actual date of that happening varied over the world. Where the change originated, around the eastern Mediterranean, the date is somewhere about 7000 B.C.\* In a few tiny patches of the world the change has never taken place—the Aborigines of Australia for instance are still, where their way of life remains untouched, in a Stone Age existence. In these islands the change took place around 1500 B.C. Rough dates these, you must remember, and marking a slow process that itself extended over perhaps hundreds of years.

And now just one more point before we get back to the beginning of the story and the Ice Ages and their significance. It is the matter of nomenclature, or the names that have been invented by the people who thrashed out the story for us. There are Greek-derived words you will meet that you should certainly understand; *really* understand, that is to say. Here are the first two. The old Stone Age is more scientifically called the *Palæolithic*

\* Roughly, that is to say, the same date as that for the splitting off of Britain into a couple of islands. Perhaps earlier.

Age, and the New Stone Age is called the *Neolithic*, both of which are simple translations into Greek: *lithos* again means "stone", *palaaios* means old, and *neos* new. This incidentally is not a matter of the scientists being difficult or self-important. They are trying to make it easier by creating a scientific world-wide language: only if you speak English will you understand Old Stone and New; *Palæolithic* and *Neolithic* you will use and understand in *any* language.

Back then to what the scientists and the experts have found out for us.

The extraordinary thing about the human race is that it entered the world when that world was suffering, as you might say, from an attack of shudders. It had suffered so before, but a very, very long time before; and its usual climate had been a calm, moist, equable affair with everywhere except around the poles as warm or warmer than an English summer's day. But just about half a million years ago it suffered an Ice Age, or rather a series of Ice Ages; and it has not properly recovered from them since.

It was the geologists who found this out for us, making strides in knowledge from about the beginning of the nineteenth century onwards that rival any that have been made in any other science, and that, in the way that they have altered our outlook on ourselves and our history, probably beat all the other sciences hands down.

Past changes in climate can be told from such things as the kinds of plants preserved in peat bogs or of shells in seas and lakes. But ice leaves something more definite, in the way of traces of its actual movement. As every mountaineer knows, it is not only latitude, nearness to the poles, that causes greater cold, but the height of the land too. In cold climes the mountain ranges form great nests of glaciers; and a glacier, which is a river of ice, gradually, slowly, flows down to the valleys. When it reaches the valleys it melts. And when and where it melts it leaves behind all its *débris*, rocks and stones that it has ground out and carried with it to its end—like the end of a raked seed bed in your garden, but on a super-scale. This washed up accumulation is called a moraine. A Swiss-born American with the rather striking name of Agassiz was the first to suggest that, from the extent and placing of the ancient moraines, there must have been an ice age. (Later, incidentally, he became an opponent of Darwin's theory of evolution, disliking somebody else's good guess as much as he liked his own.) Then came Messrs. Penck and Bruckner, who found out an enormous amount about the ice ages by studying with the utmost care and minuteness these ancient moraines of the Alps and by comparing and scheduling and considering their findings. Others have followed and have worked elsewhere, and have as it were trimmed the edges and improved the picture; and the diagram

opposite shows what is generally accepted as the final truth. The Northern Hemisphere of the world, between about five hundred thousand and twenty thousand years ago, suffered a series of four ice ages with periods of mildness in between that if not always as mild as the world's old condition, were nevertheless in most northern latitudes considerably milder than the equivalent climates of today.

That was a curious thing to have happened. It, or rather its ending, had the effect we have already mentioned, the making of the "British Isles" indeed into islands. If you have a colossal thick slab of ice over a wide region round the North Pole, always dribbling at its edges, it is true, but always being renewed by the solidifying of the snow, then a tremendous amount of water is in consequence locked away from the oceans. Let a large portion of it melt, and the seas rise and the lowlands get drowned. That is what happened, slowly, after the ice for the last time began to recede about 15000 B.C. By 7000 B.C. it was no longer a river or two which separated this country of ours from the mainland, but a sea. . . .

However important you may think is the formation of the British Isles, the Ice Ages are responsible for something even more important. We have said that the human race, the race of mankind, the *genus*, as the biologists have it, called *Homo*, happened to arrive when the Ice Ages were there

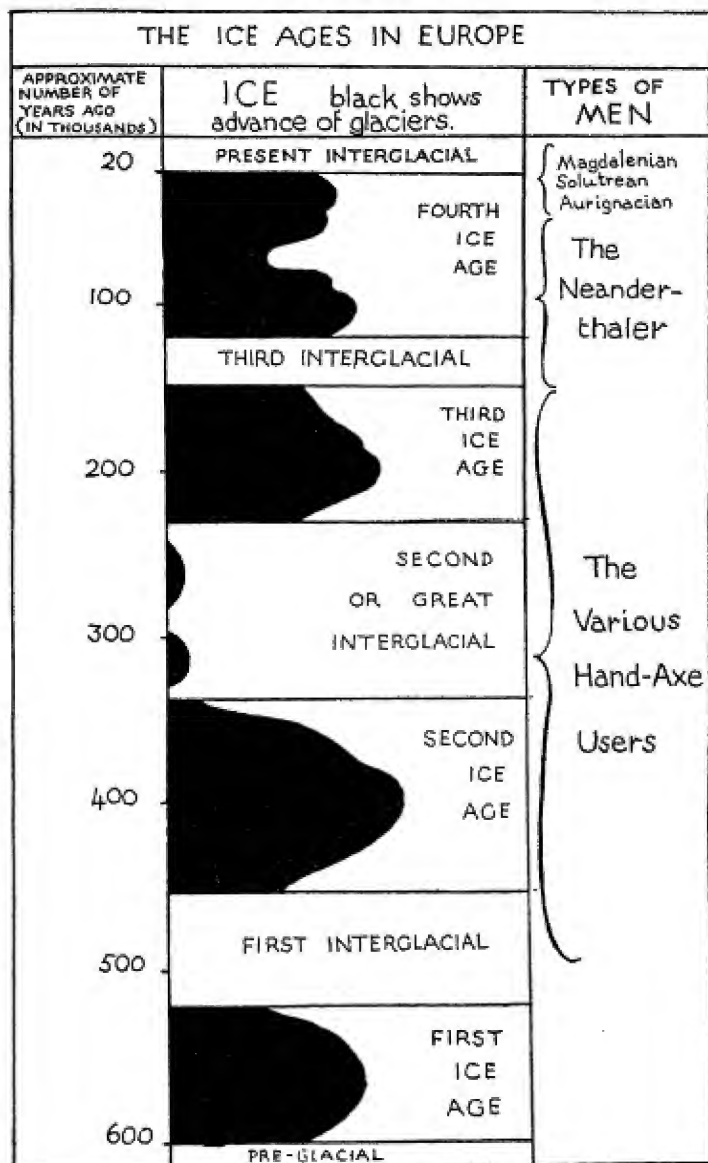
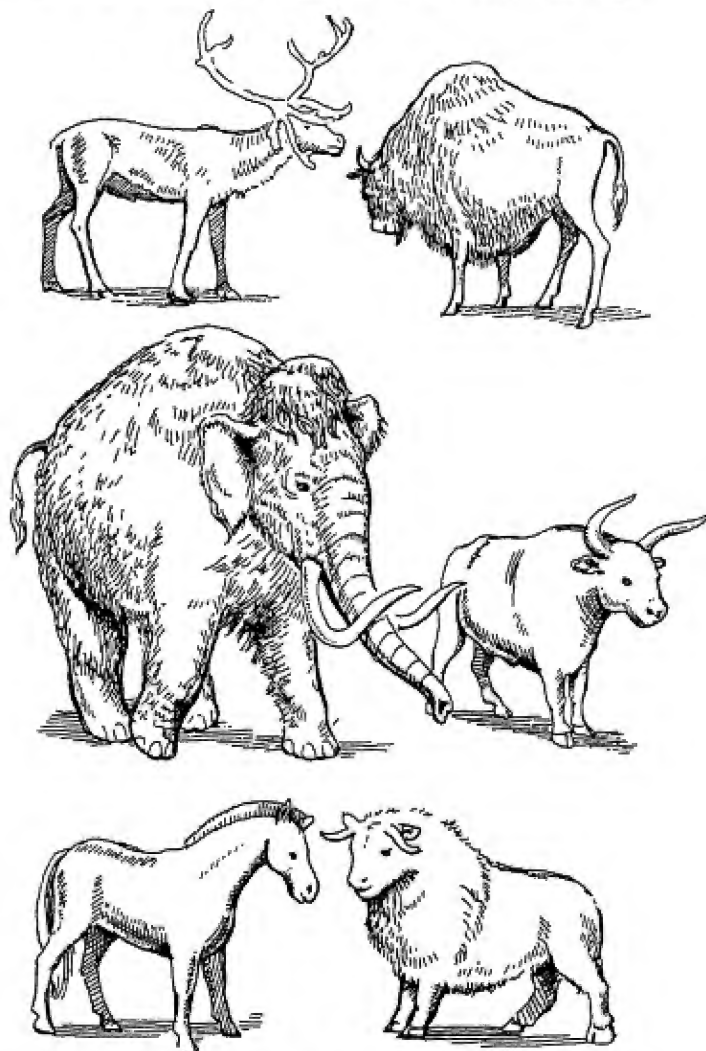


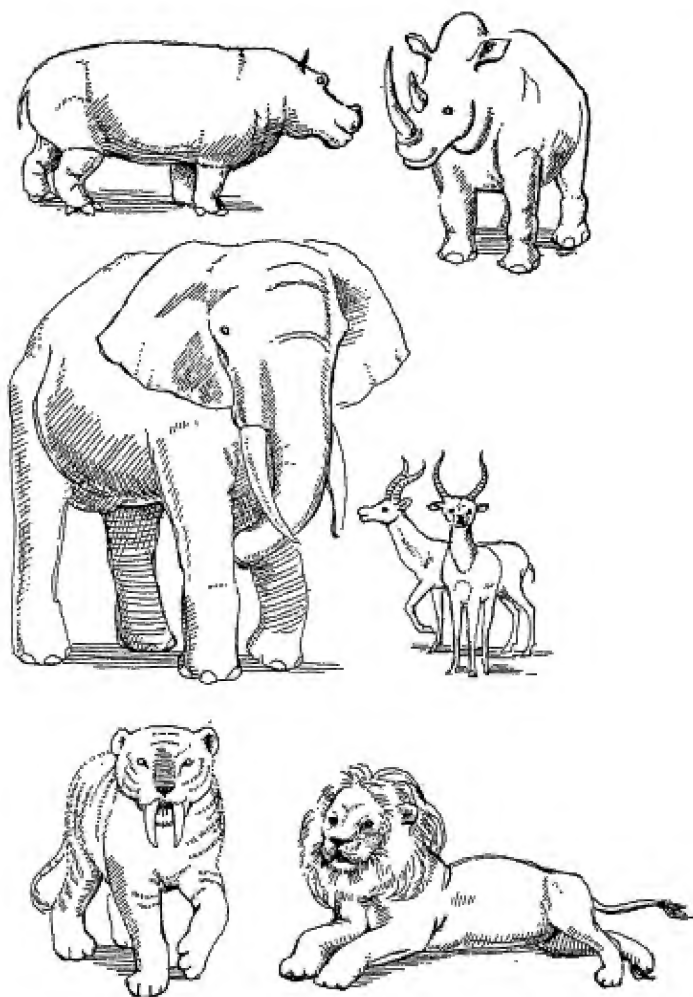
Chart to give an idea of the advance and retreat of the Ice Ages

to face him. At first he did not choose to face the ice—he kept down near the equator where it was warm. But he did not stay there. Perhaps at first a few odd groups of men merely strayed. But when to their amazement and consternation the first winter arrived—they had never heard of such a thing, poor folk—they did not turn back, at least not all of them. Hardihood, or inquisitiveness, or something, induced them to stay put, or even to advance further. And common sense, or as we say an instinct for self-preservation, made them no doubt build wind-breaks and primitive shelters as they went—while in order to fell the saplings and cut the boughs, to scrape the animal skins that they would drape over the boughs of their shelter (and no doubt themselves) they would use tools, flint axes and knives and scrapers. It cannot have been wholly pleasant to live on the edge of the ice, to penetrate north—the people left behind must have thought that *they* were the wise ones. But it was more exciting, more venturesome, more thrilling, and, since there were many animals who seemed also to prefer the colder climate, the adventurous ones also probably ate better; so long, that is to say, as they had the courage and enterprise to hunt and kill. Nor was it the people left behind who finally achieved civilization, but the people who moved away from the easy warmth. In other words the Ice Ages formed a *challenge* to the early

racess of mankind. Those who accepted the challenge, so hard was it, did not always win their reward. But some of them did. And both kinds penetrated into the bare southern part of a land whose northern confines were ice covered and which was one of these days to become known as Britain.



Europe's glacial animals: reindeer, bison, mammoth, bull, horse, musk-ox



Europe's inter-glacial animals: hippo, rhino, elephant, antelope, tiger, cave-lion

## 2

### STUBBORN WILLIAM

**A**PART from such obvious relics as Stonehenge—and we already know that this came late in our story—however and wherever are you going to find evidence that so long ago as the second half of the Ice Ages human beings of any sort lived in Great Britain?

The answer is, of course, the things that such people made and left behind. Or rather, the things they made and left behind and that have survived. That which will survive better than anything else is stone.

But how do you know that these bits of flint found lying about and that look as if they had been shaped by men have *really* been shaped by men? And even if they have, how can you know that the men who had shaped them had lived so very long ago? These were the first difficult questions that the early enthusiasts—the pre-archæologists as we might call them, for the name had not yet been

invented—had to face.\* What was worse for them was that they had to face a disbelief that was backed by a most powerful collection of prejudices: to make the ordinary person of a hundred years ago believe in Stone Age Man was about as difficult as putting one's shopping in a basket that had already been crammed to the brim with waste paper. Perhaps it is a little disrespectful to compare the beliefs and teachings that were in the mind of the man-in-the-street of the 1850s and 1860s to a lot of waste paper. But the effect of them being *in the way*, so that to add anything fresh was difficult, is strictly comparable. Even the enthusiasts themselves had imbibed the same beliefs and teachings, and so they too often found it difficult to convince themselves. Which makes what they discovered and learnt so quickly all the more remarkable.

But why do we speak of the 1850s and 1860s? The answer is that it was then, and not until then, that the great change in thought about mankind's age and ancestry and origins came about. It was

\* *Archæology* comes from the two Greek words *archaios* and *logos*. The latter means "word" or "report"; the former we use in English, "archaic". "Report on the archaic", therefore, or the science of ancient things. Other sciences to which we shall be indebted in this book are: *geology*, the science of the composition of the *earth* and the earth's surface; *palæontology* or the science of *old things*, that is to say of fossils; *biology* or the science of *life*, all kinds of life; and *anthropology* or the science of *man*, in particular the beliefs and behaviour of early and primitive men, whom our great-grandfathers called savages.

in 1859 that the famous Charles Darwin published his *Origin of Species* and set people thinking in terms of evolution (or, like Agassiz, doing their very best not to think in terms of evolution). Four years later Darwin's mentor and instructor in geology, Sir Charles Lyell, published *The Antiquity of Man*. We, who have learnt to take these ideas for granted, can hardly realize how much they were *not* taken for granted only a hundred or so years ago. You had in those days to be a forceful, patient and determined sort of person to get your new ideas and knowledge accepted—though the very opposition spurred you on, if that is to say you were made of the right tough stuff. We owe a lot to these pioneers, these nailers, these stickers-out for the truth.

And how they worked! How they were greedy for knowledge in those days! It must have been a good time in which to be alive—if you were a worker and liked learning. One who certainly was, and did, came from Cornwall and had a good old Cornish name, William Pengelly. He was indeed a remarkable man—let us see if we can learn a little about him without acquiring an inferiority complex or a feeling of resentment against one so clever and hard working.

William's father was the owner of a coasting vessel plying from the little port of Looe. At twelve William left school to work with his father—no "Eleven Plus" exam for him. But he had made

pretty good use of his time. At five he had been able to read so well that the local schoolmaster, catching him comfortably at it on his mother's front doorstep, had let him into his school at a specially early age. On board his father's sailing ship William went on reading. Now he performed for the benefit of the crew—who, when they were becalmed or hove-to while waiting for a contrary wind to drop, would congregate round the cabin table and take the opportunity to mend their clothes. "My poor library," William was to explain later, "consisted of a Bible, the eighth volume of the *Spectator*, Johnson's 'English Dictionary', a volume of the *Weekly Miscellany*, which I have some idea was published at Sherborne, the history of 'John Gilpin', and 'Baron Munchausen's Travels', Walkinghame's 'Arithmetic', and a book of songs." What a mixture!—I wonder which we should have preferred. The seamen didn't think much of the *Spectator* but were not at all averse to the Arithmetic: they liked to compete in doing the sums mentally, and fortunately for William the answers were at the end of the book.

Figures as a discipline for accuracy and logical thought! William Pengelly was later to teach mathematics, as well as the "natural sciences". And one other story we must tell here as an example of how country people, at any rate some country people, regarded learning in those days. William in later life was visiting an old friend, a parson.

Entering, he explained that as he had a long walk to the nearest town before him he could not stay later than eight in the evening, which was in a couple of hours' time. "Oh, very well," replied the parson, "then we must improve the shining hour. Jane, my dear, be so good as to order tea."

Having so said, he left the room. In a few minutes he returned with a book under his arm, and his hands filled with writing materials, which he placed upon the table. Opening the book, he said:

"This is Hind's 'Trigonometry', and here's a lot of examples for practice. Let us see who can do the greatest number of them by eight o'clock. ... We can drink our tea as we work, so as to lose no time."

The visitor did not object; and gracefully lost, by one sum.

But we must get back to William's career. He left the sea at fifteen and set about educating himself. This he did on a shoestring, as they say, and suffering great hardship. He moved across the county border to Torquay and there started a school. It was a struggle; but finally he did so well that in 1856, at the age of thirty-four, he was able to set up as a private tutor, teaching besides mathematics, physics, astronomy and in particular geology. Geology rapidly became his first love. Roving about, rather as the young Darwin

did, with his geological hammer, he collected fossils—and thought. He lectured widely, being a born teacher, as the self-taught often are, for the simple reason that they know the difficulties. He was still a poor man, because he had the too frequent habit of lecturing for no fee; but his fame was spreading and he gradually got to know all the famous geologists of the day, Sir Charles Lyell included. Then he became interested in the local caves, where two different sets of things were being found: the bones of extinct animals, and those flints which such as Pengelly held were ancient man-made tools. . . .

Now we must break off for a moment and consider the difficulties that pioneers like Pengelly were having to face in finding out about the Stone Age.

You may have heard of a certain Bishop Ussher. He stands in the way, not like the angel with the flaming sword who stood in the way of Balaam's ass, but rather like the ass himself. So we may now think, though certainly not at the time, which was in the seventeenth century, nor for a couple of centuries to come: Bishop Ussher was a highly learned and highly respected man. Working from the Bible he dated history back to the beginning. The world and man were created, he announced, in the year 4004 B.C.

Do not laugh! He was no more wrong in the light of his times than were the physicists of only fifty years ago who invented and talked about the

*ether* or, to go to the other extreme, were the Stone Age men we are considering, who would have told you that anyone could see with his own eyes that the earth was flat. What Bishop Ussher and those who followed him could see was *the printed word*. It was not only that the Bible had authority and was taken literally. There was nothing to contradict it. The Greek historian Herodotus would tell you if you read him that for instance the Egyptians were very ancient people, much more ancient than the Greeks; Julius Cæsar would tell you about the painted savages who lived beyond the confines of the Roman Empire that he was helping to create. But there was plenty of room for all these in the 4,004 years before Christ. Man had been created in that distant day; then a good deal later had come the Flood and everything had had to start again from Noah; and then had gradually come civilization; and that was that! Anything old that one discovered was therefore either Roman or Greek or if really old it was "before the flood" *Antediluvian*. It was as simple as that. Poor Sir Charles Lyell, poor Darwin, poor Pengelly!

What had really to be got across to the educated but stubborn men of the nineteenth century, you will understand, was essentially a conception of time, a new conception of the *length* of time, of the colossal stretch over which life as a whole, the race of man included, reached backwards.

It was a stretch that would make not only four thousand years look silly, but forty thousand and even, for life as a whole, forty million. Then coupled with that difficult new outlook was the stumbling block of Evolution, of the idea in particular that man like the rest of life had slowly evolved from simpler, more primitive, more brutish beginnings. Even if 4004 B.C. were reluctantly relinquished, there remained the prejudice against believing that men went back into the dim and distant ages, that they had been alive when animals long extinct had been alive, that there had actually been extinct races of men as there had been of the animals. Man had been created, once and for all: to believe anything else was unthinkable.

But it *had* to be thought and believed. The evidence, as the patient and tough-minded men dug it up, became overwhelming. Before returning to William Pengelly in Britain, let us look for a moment at another of the pioneers who was searching on the other side of "River English Channel" and in fact along the banks of another stream, the River Somme of France.

We meet this time not a poor man's son, but an aristocrat who traced his ancestry back to the family of Joan of Arc. He became a Customs official at a time when Customs were important to France because Napoleon was trying to cripple Britain's blockade. He travelled over most of his master's Europe on the job, and coupled an eye

for natural history learnt from his father with, as it has been said, an eye for the out-of-place learnt from looking for contraband. He found flint tools in the river bank near his home town of Abbeville which, though they certainly had not been put there by smugglers, had with equal certainty not arrived there naturally. Jacques Boucher de Crèvecœur de Perthes, for such was his name—Boucher de Perthes for short—wrote books of travel and even plays and novels in his spare time, but more importantly a three-volume work entitled *Antiquités Celtiques et Antediluvien*.

It is interesting to note that even he speaks in terms of the old language, talking of *antediluvian* or “before the flood”. The book however was by no means an old-fashioned or ordinary one inside. De Perthes announced forthrightly that the flints he was discovering were (a) man-made and (b) different from all other “antiquities” in not being just old, but incredibly old. No one would believe him. Men did not so much argue against him, he complained, as ignore him. He persevered, however—we have said that these people were tough. At last a fellow scientist from farther up the river at Amiens set about to discountenance him. He too searched for flint tools in the banks of the Somme—and found so many that instead of refuting de Perthes he enlisted himself on his side. De Perthes, retired now, over sixty, upright and imposing with a little white beard, at last found things going

his way. His fame spread: in 1859, year of Darwin's famous book on Evolution, his theories were recognized by the British Association and the Royal Society. The old man, still enthusiastic and hopeful, who had so far only found flint tools and the bones of extinct or tropical animals, now set about searching for the bones of the flint-users themselves. Rashly he offered a reward for their discovery. He was promptly rewarded by the find of an old jaw-bone. It was proved to be a fake. Not only that, but it was found too that some of his famous flints which reward-greedy diggers had discovered for him had been "planted". De Perthes, now nearing eighty, retired from the game in disgust.

No one, however, had questioned de Perthes' own honesty, and his great point was largely made. Disbelief was weakening; things were in the balance. Let us return now to England, to see what William Pengelly managed to do to make the balance fall down good and heavy for all time in favour of the men who would soon be called archæologists.

Whereas the Frenchmen were exploring river banks, Englishmen were exploring caves. They were finding the same things: flint tools side by side with animal bones. William Pengelly had by now—we are in the 1840s—founded the Torquay Natural History Society; and nearby was a cave, called Kent's Cavern, that inquisitive people had been exploring for some time. Pengelly set the society on to it. This was a cave where drippings

from the limestone above had formed a floor of glass-hard stalagmite, and the finds were *underneath* it. The bones and the flints, therefore, asserted Pengelly, must be of the same period as each other; nobody could have put anything there later. Yet even now most people would not believe him. They had some show of reason on their side: these caves were often found to have been occupied through the centuries, and the diggings of these people had in this case been followed by the very unsystematic digging of the inquisitive amateurs over the last twenty years. By now anything could have happened; anything could be claimed and nothing proved.

"Very well, then!" said Pengelly, or words to that effect, "we will try again—and on a new site. And you can watch me from the start!"

A new site was found, a cave discovered while quarrying in Windmill Hill above nearby Brixham. There followed the rather curious sight of William Pengelly directing operations while a posse of serious scientists, Sir Charles Lyell among them, watched and stood by to see fair play. The same conditions were found in the cave: a sheet of stalagmite below the modern *débris*. Any break in this covering sheet, gentlemen? No? You are quite sure? Very well, then, we will continue.

They did continue. And found below the layer of stalagmite the bones of cave lion, cave bear, hyena, mammoth, woolly rhinoceros and reindeer,

together with numerous tools and weapons. The doubters had no more objections to raise. . . .

Pengelly went on with his searching, and thinking. He returned to Kent's Cavern to do some much more careful excavation, systematically noting at what depth everything was found, a process called *stratigraphy*. This may seem an obvious necessity to us, but was a new idea a hundred years ago. Visualize a cave lived in by a people for generation after generation. Dust will fall, mud will be brought in, food will be left about, ashes from the fire will spread—we cannot credit early Stone Age man with a passion for spring cleaning. The result: over the centuries a gradual heightening of the floor of the cave, so that little Uglu, or whatever you like to call her, is sitting a couple of inches higher up than say her great-great-grandfather, and somewhere buried underneath her, and forgotten, is great-great-grandad's reindeer bone that he had for breakfast one day together with the equivalent of his penknife that he most aggravatingly lost the day before.\*

In other words, once more: *time*. What William Pengelly and his friends were digging up covered many, many centuries, and the deeper they dug down in the caves the deeper too they dug down

\* The same sort of stratification occurred in the banks of the Somme, where the river through the ice ages alternately cut deep and deposited sand and other drift material. The early archæologists called the men discovered in England "cave men" and in France "drift men", but it is a distinction now best forgotten.

into history. The bones of those animals, for instance: mammoth and reindeer and woolly rhinoceros were more or less Arctic creatures; hippo and lion pretty well the reverse. There must have been some startling changes of climate. Then the pattern of flints changed as the searchers delved downwards. There was, most obviously, a great deal more to learn about the men of the Stone Age beyond the mere fact that they really had existed.

Questions like this for instance:

For how long had they lived?

How often had they changed their ways of making flint tools?

Then there was one type of tool in particular that was always turning up:



What about that?

# 3

## POOR DAWN MAN

“**T**HAT” of the last chapter is the *palæolithic hand axe*. At least that is what it is generally called. Boucher de Perthes and his followers called it a *coup de poing*, a fist-weapon. Nowadays engineers talk about hand tools as opposed to machine tools, and “hand tool” might be the best name of all for what must have been the most precious possession of the man of the Old Stone Age. Its proud owner gripped its rounded end—and if you can prevail upon a museum curator to let you hold one you will see that you need a pretty big and strong hand to do so—he gripped it hard and he slashed and jabbed with it, and if he was lucky enough to kill the animal he had attacked, or finish off the animal he had trapped, he then used the sharp sides of it for the process of skinning and dismembering. He possessed in fact the universal tool, a sort of early forerunner of the boy-scout’s pocket-knife.

Now, we have talked rather glibly in the first two chapters about flints and tools without stop-

ping at all to describe or question. There are two questions one must ask if one is to understand one's early ancestors who lived in this country and elsewhere. The first question is "why *tools*"? The second is "why *flint* tools"?—why a Stone Age and not a Wood Age or a Bone Age or some other sort of Age?

The first question may seem slightly foolish. Of course, tools! But it is not in the least "of course". Animals do not use tools, and they get on very well one might say without them. That however is the whole point, the difference between man and beast. Man has a brain vastly better than has any animal, a brain that visualizes, reasons out, that can recall a past situation, conceive a possible future one, and think about both. An ape may use a stick if given it; he will throw a stone. But he will never for instance, as did some early ancient, dim-witted genius, pick up a stone that has broken after being thrown, and see that it has a sharp edge, and *think*: "I could use that. I can see myself using it—jab! thrust! cut!—*hooray!*" If man evolved from some simpler, dimmer-witted creature who lived in the trees and had good sight and paws that were potential hands—and there is little doubt but that he did—then on the day when, having climbed down from the trees and learned to walk upright, he used those free hands of his to pick up a broken flint

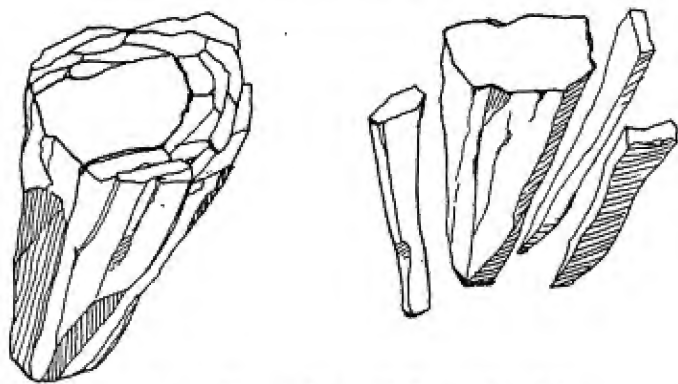
and keep it and use it—then on that day he became a man.

As for the other question, why *flint* tools, we have more or less answered it already. Whether it is true or not, I would not like to say; but the proverbial schoolboy is supposed to have in his pocket at least a pen-knife and a piece of string. The first men felt something of the same need as the hypothetical schoolboy. For tying things, they could find no doubt the strands of some tough creeping or climbing plant. For cutting they could find—the broken flint. The *cutting* tool it was that was so useful. Hence stone, bronze, iron, all of them cutting mediums. From that comes everything else. The Stone Age is in fact also a Wood Age, a Bone Age: but it is the essential stone that is going to be used to cut and crush and slice, and later to carve and saw and sharpen the wood and the bone.

Other kinds of stone or rock were used besides flint, and increasingly so as time went on. But flint was the most common, the most favoured. For it was lying there, most conveniently, waiting for the birth of the creature with a brain big enough to have the wit and skill to use it. What was needed by man was, of course, a stone that was hard and that yet could be broken and, more importantly, could then be worked, to give a sharp and durable edge. Those rocks that are a form of silica all fill the bill more or less, chert and obsidian for instance; but those knobbly shaped nodules that appear in chalk

are the best. Everyone must have seen an original lump of flint, whether on the Downs and the chalk-lands or, as it were lying domesticated, in the rock garden. On the outside the flint is dull-whitish. But that is only a weathered rind. Break it, and you reveal a surface black-grey and shining like water. A very thin sliver can be almost transparent. The edges are murderously sharp.

To work flint you have to be an expert. That is what a Stone Age man became. He learnt first of all *how* flint broke, always along certain definable lines. He learnt not simply to put the lump on a hard surface and bash at it, but to hold it lovingly in his hand and to tap comparatively gently with a stone from above. Flakes would then come off; and the shape and thickness of the flake could be varied with the angle of tapping. Then would come a refinement in this process of flint "knapping". You would work not with another stone, but with a piece of wood or bone, and you would, for your final trimming—that is if you had the skill and knowledge—gently *persuade* the finest chips and slivers to come away. Finally you would have produced your precious tool, your lovely pear-shaped hand-axe for instance. We probably have no idea of the skill and patience which went into the making of flint tools. There was no question then of cost, or worrying over such incredible statements as that "time is money". You were making your own most treasured possession, almost your only possession.



How a flint nodule will flake when hit

If you were not satisfied, then you probably threw your effort away and started all over again. If you made a very good weapon, and became into the bargain a famous person, then it would perhaps be preserved and given the place of honour in the house after your death. Perhaps, like the bows of Ulysses and of King Tuthmosis III of Egypt, which were too strong for ordinary mortals to bend, there were hand axes too big for ordinary mortals to handle—judging by the size and magnificence of some that have been found this seems likely enough to be true.

Yet there are of course other tools than the hand axe that have been found, in Britain and elsewhere. One great point about a flint in fact is the convenient one that in knocking it about—with skill, of course—you more or less make two tools or weapons at the same time: firstly what you are

working on, the *core*, and secondly what you chip off, the *flake*. The bigger and longer flakes approximate very often to pretty good knives.

The perhaps rather curious thing, but from the point of view of us modern discoverers, the rather convenient thing is that there were Stone Age fashions in flints. Perhaps "fashion" is hardly the right word, if it gives the idea of something changing and passing rather quickly, such as the length of a girl's skirt or the shortness of her hair; "tradition" is probably the better word. There was a tradition in flint styles. And here comes an utterly amazing fact: the tradition of the *coup de poing*, the hand axe, lasted over something like a *hundred thousand generations*.

We come now, we begin to come, to the history of Stone Age man, to what happened to him and how he progressed. And obviously from what has just been said, the progress was extremely slow.

Rather, progress *at the start* was extremely slow. The hand axe is the typical tool, the trade mark as you might say, of *early* men, of men who came into the world long before there existed *Homo sapiens*, the species of man to which we belong. This early man lived mostly in Africa; he probably started in Africa; and he went on and on in the same old way with the same old tool. Only those, as we have said, who ventured forth from the easy conditions of the tropics were to achieve change and progress; and it was they who, as one would

expect, changed and improved their flint tools.

We are up against a danger here, of becoming bogged down in a morass of portentous names.

The different types of flint tools, and the places in which they were first found by people such as Boucher de Perthes and Pengelly, have given their names to the different kinds or tribes of men who used, or typically used, those particular tools; and the names of these different "cultures", as they are called, are not only rather complicated but have had the habit of changing as more knowledge has been gained. We speak of an *Abbevillian* culture, for it was around Abbeville that Boucher de Perthes worked, and an *Acheulian* culture, for it was at *St. Acheul* near Amiens that de Perthes' erstwhile enemy and later friend, you will remember, worked and found a different type of flint tool. And so on. The best thing we can do is to leave this plethora of names to the textbook and keep our own story simple and more or less free of them. If in the process there arrives something of an oversimplification, the expert will have to forgive us.

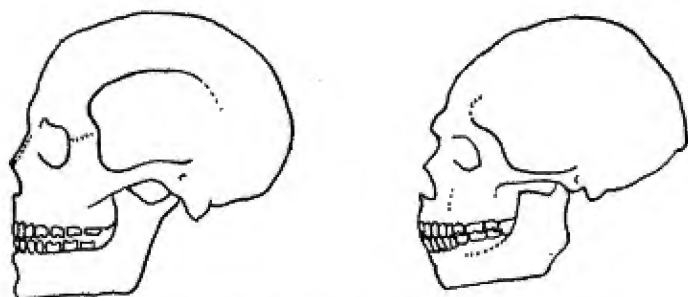
Back to the Ice Ages then and their enormous stretch of years, in order to give a framework in which we can see the palæolithic peoples, the first and early Stone Age peoples, who penetrated into Europe and into that north-western bump on its outline that was later to break off and eventually be called the British Isles.

If you will remember, there were four Ice Ages

and three in-between periods, called interglacials. The interglacials, luckily for man, lasted longer than the Ice Ages. It was during the last-but-one interglacial and last-but-one Ice Age that the hand-axe users wandered at all extensively over Europe. It was over the *last* interglacial and the *last* Ice Age that the hand-axe users' successors wandered. And those successors are by far the more important, and they can be divided into two kinds and two only: *Homo neanderthalensis* and *Homo sapiens*. *Homo n.* faced the last Ice Age and finally succumbed; *Homo s.* faced it and survived—if he hadn't, you and I would not be here now. The first of these two appeared on the scene, on our European scene that is, about a hundred thousand years ago; the second about forty thousand. As for the poor hand-axe user, his brain was not very big or good; he was some variation or other of what has been called *Pithecanthropus* or Ape-Man; and he just petered out.\*

In actual fact "Ape Man" is a misleading name to give to the creatures who thrived in Africa and also round about Java and Peking and who were the first to penetrate into the caves of Devonshire or leave their tools to be washed up for Boucher

\* Or evolved somewhere into something better—our own race of *Homo sapiens* may be an offshoot from his. Nor was the use of the hand-axe solely confined to him or died wholly with him. All these divisions and categories and generalizations must not be regarded too *stiffly*. They are convenient but not *exactly* true—as is the statement that Frenchmen eat frogs' legs and Englishmen don't.



A comparison: *left*, true man; *right*, Neanderthal man

de Perthes to find along the steep banks of the River Somme. To think of men in terms of apes is bad and misleading—and led in fact to a horrible misapprehension and worse than misapprehension, with a slight description of which we will end this chapter.

The great thing about the hand-axe users was not that they were like apes, but that they were unlike apes. They may not have had very good brains, but none the less their receding foreheads housed better instruments than any clever chimpanzee that any Zoo has ever had or ever will have. The trouble has been that people were so shocked at Darwin's coupling together of man and ape that they could not get the ape idea out of their heads.

They sought in fact what they expected to find. Hence the brief existence of "Dawn Man", *Eoanthropus*, and the sad but funny story, the tragi-comedy, of the discovery of his bones in the

gravel pits near to the Sussex village of Piltdown.

People in those days—those days being at the beginning of this present century—were very busy looking for *eoliths* or “dawn stones”, the first flints that man had ever made. We have rather given up the search now, partly because man seems very early to have progressed as far as the hand-axe, which is a much more interesting object, and partly because it is very difficult to recognize an eolith when you see one, nature having a habit of knocking about a flint in very much the same way as did an ape man—I beg your pardon, an early man. This difficulty was indeed causing much bad blood and rivalry amongst collectors at the time. Enthusiasts haunted new railway cuttings and quarries and places like that, and seized avidly on flints, and gloated over them and made extravagant claims for them.

But what was sought after even more keenly was any physical trace of the Stone Age men who had used these flints, *eolith* or any other *lith*. Ever since the days of Pengelly, who had tried and failed, the discovery in this country of men’s bones of genuine Stone Age antiquity had proved very difficult to achieve.

But then an Eastbourne solicitor, a Mr. Dawson, did the trick. Workmen unearthed a cranium, the top part of a skull. Having, it is said, had a few pot shots at it with stones, rather like children on a beach, they then let Mr. Dawson, who was well

known locally as an enthusiast, take possession. The thing was obviously old, though no one in those days possessed the scientific means that we now have of deciding how old. But a cranium does not tell you very much: what a pity there was not more, a jaw for instance which by its shape and its teeth can tell so much more. A few days later, and a few yards from where the skull had been found, a jaw did turn up. What luck!

And what a lot of fuss and bother that jaw caused. Although the cranium showed a modern-sized brain, the jaw was little better than a chimpanzee's. Some people in fact said it was a chimpanzee's. But then how on earth could an ape's jaw be found in a Sussex ditch next to a man's skull? They *must* belong to one and the same person. *Eoanthropus*, Dawn Man, was accepted: a creature with an apelike jaw but yet obviously a man because with a man's brain. He was given a date of anything up to a million years ago, and appeared in all the textbooks.

But some people were never quite happy about it; and a few years ago the famous skull and jaw were subjected to new and most rigorous tests. The verdict was that undoubtedly a hoax had been perpetrated. The jaw *was* a modern chimpanzee's jaw, and it had been doctored to make it more convincing, stained with permanganate and some of the more tell-tale teeth knocked out. To make their finds even more convincing the hoaxers

—whoever they were, Dawson and his friends or Dawson's enemies—had planted, as well as the jaw, a mammoth bone that was supposed to have been worked by Dawn Man's flints. It had, however, had work done on it that nothing less than a steel blade could have effected. As for the skull, it was a genuine human skull all right, but of no significance whatever, being only a few thousand years old.

It was all a great pity. The archæologists were badly misled. The truth is that very early man is not a creature with an ape's jaw and (presumably) body, but rather the reverse, an upright-standing and quite human-looking creature that has not yet as it were exercised his brain sufficiently to bring it up to *Homo sapiens* standards. The truth is also that very early man was not found in Great Britain and probably never will be. Two things we ourselves can learn from the hoax. One is the more obvious: how easy it is to be hoodwinked. The other is that there is no need for us to refuse disgustedly to believe anything from now onwards that the archæologists tell us. For directly the hoax was discovered—and it needed modern techniques to do so\*—the fact was broadcast to the world, and there was never any question of trying to hush up the shameful truth.

\* In particular the technique of dating by the "radio-active carbon" method. All living substances absorb a very small portion of this carbon from the upper atmosphere, and then after death lose it at a steady and *calculable* rate.

# 4

## THE MIGHTY HUNTER

**W***HAT did they live on?*

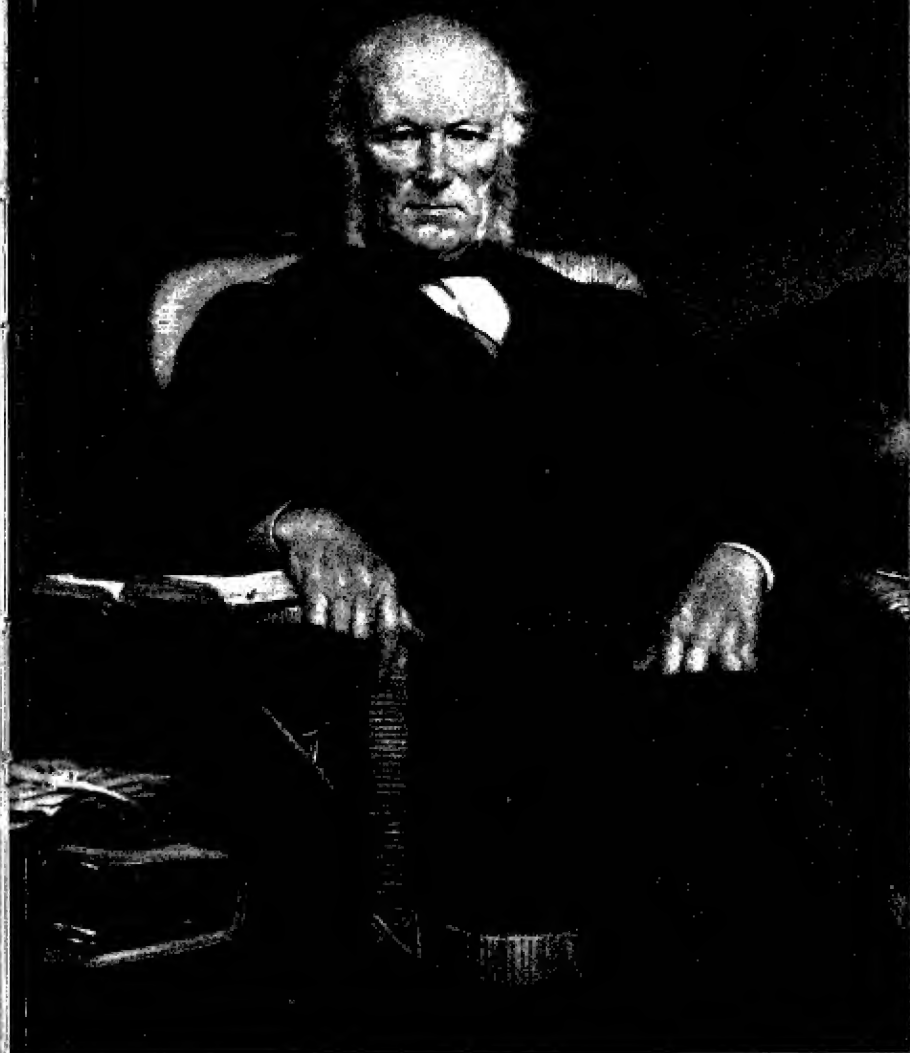
They, the Old Stone Age men, lived on animals. They were meat-eaters. No doubt they would sometimes make do with roots and berries and nuts, in season and when there were any; no doubt there was often no animal to be found and they nearly starved or did starve. But, speaking generally, there were plenty of animals about: man came upon the world scene at the end of the heyday of the mammal—a heyday incidentally that he has ever since done his selfish best to spoil.

However, you have to catch and kill your animal if you want to live off him—you have got to be a hunter. And that is what palæolithic man was: essentially a hunter, just as neolithic man was essentially something else. He was a successful hunter, or else he would not have survived, and increasingly successful or his kind would not have increased and multiplied. We will devote this chapter to observing how he did succeed as a

hunter—covering a good deal of change and an enormous span of years in the process.

You will remember that the animal bones found by William Pengelly were of two contrasting types, those of cold-climate animals and those of a warmer climate. The reason, as you may have guessed, is the recurring Ice Ages. Those bones are separated in time by thousands of years. One can regard the four Ice Ages and the warm ages in between as a sort of pulse, something opening and shutting. The ice shut down on the northern world, then slowly the warmth spread from the south again and once more everything opened up. With the warmth spread the warmth-loving vegetation and northward trekked the warmth-loving animals—and as far as Europe was concerned they had a land bridge to help them, because the Mediterranean was not then a sea but a lake (or a couple of lakes). When the ice returned these animals would return too, from whence they came. And the animals who thrived in the cold and who had gone farther north would come back.

In truth there were three types of animal, depending on three types of land. At the very edge of the ice would come *tundra*, bleak windy lands, dusty in the short summer, wet and boggy in the autumn, snow-covered in the winter, suddenly bursting into brief flower in the spring. Main food for animals: moss. Next to that, farther from the

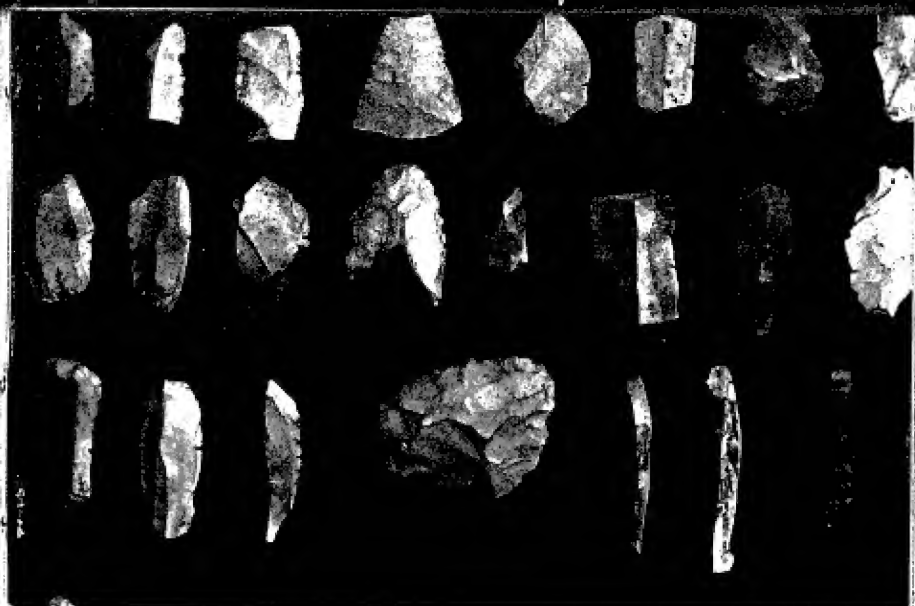


He made them believe in the ancientness of Stone Age Britain: William Pengelly (1812-94). *(Reproduced by courtesy of Radio Times.)*



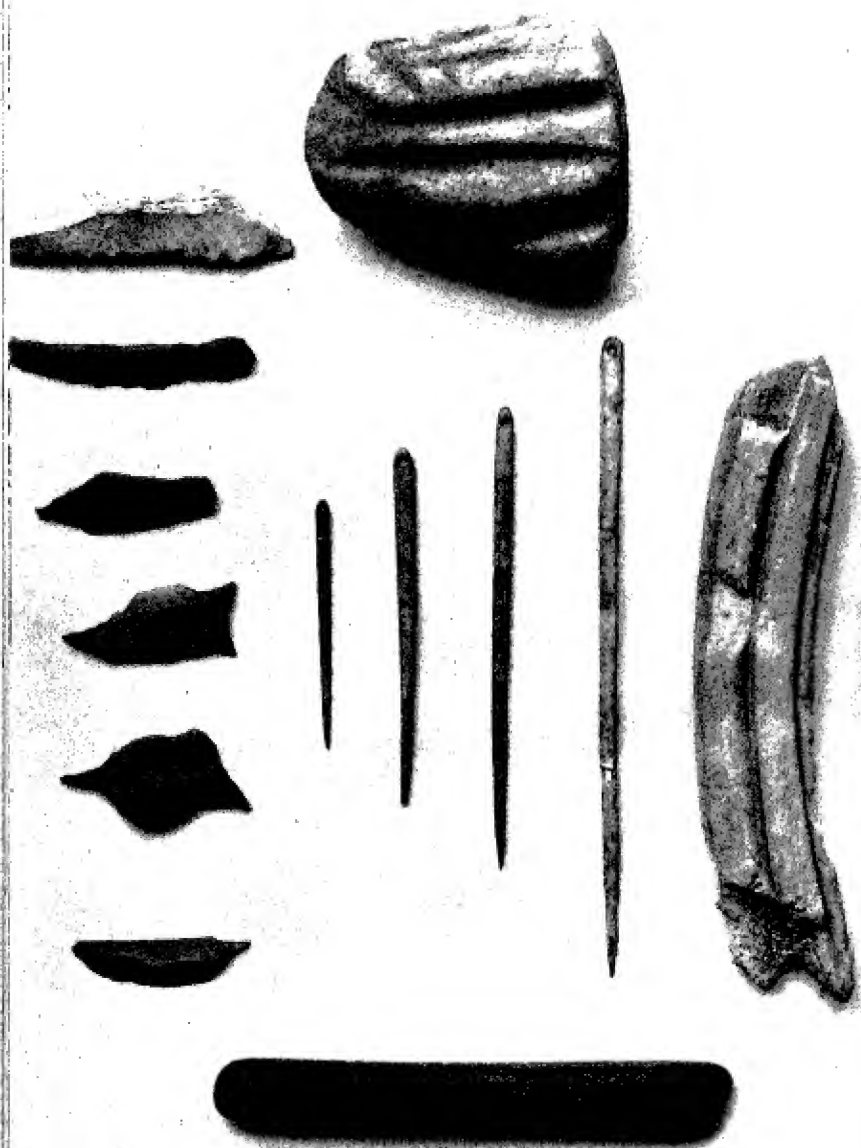
The two to whom we owe  
most for the preservation  
of Avebury: John Aubrey  
of the seventeenth century,  
and Alexander Keiller of  
the twentieth.





The British Stone-Ager's tool-set, and what he could make with it—a pair of beautiful harpoons. (*Photos: British Museum.*)





Neolithic needles and how to make them: cut out a splinter from a piece of bone (*top and right*); round it with a serrated flint (*left*); and smooth it with a stone burnisher (*bottom*). (Photo: British Museum.)

ice, would come *steppe* lands, grass and grass again, paradise for horses. Next to that the sub-tropical: forest, lush swampy rivers, paradise for the hippo—until the lion or tiger got him.

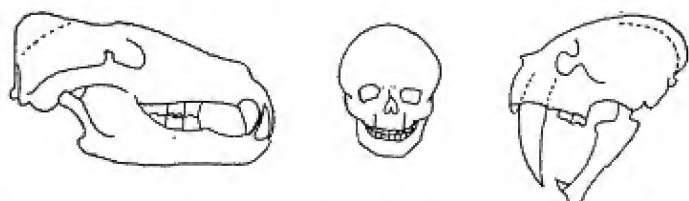
So over the long thousands of years varied the northern lands, France and England included. Incredibly to us, at one time hippopotami were wallowing in what is now the Thames and lions were stalking the hippopotami. Incredibly to us, again as far as the Thames, the ice came down.

That was during the last Ice Age but one. In the last, as you can see from the map, the ice did not reach quite so far. And it was during the last inter-glacial and the last Ice Age that men came to north-west Europe in any strength at all.

This we have said before. But it is something important to realize. We should be able to visualize our country as it was first inhabited; but we should remember while doing it that it was extraordinarily sparsely inhabited and probably only in the unmountainous south-east part at that. This knob on the edge of Europe was a little too far out for most Old Stone Age men. Total population: perhaps 250, well possibly a thousand. Even compared with nearby France the palæolithic sites discovered are few indeed and the human bones fewer. You had to be adventurous or fool-hardy to reach as far as Britain in those days; and to stay when the ice came sweeping back to its limits you had to be braver still.



Before the ice retreated: Northern Europe half covered, and Britain joined on to the Continent



Man and his rivals—bigger teeth but smaller brains. Skulls of cave bear, man, and sabre-toothed tiger, approximately to scale

The first men to do this were almost certainly the Neanderthal men, *Homo neanderthalensis*, whose name we have met already. He comes after the hand-axe users and his favourite flint weapons, called *Mousterian*, were made not from the flint cores but more delicate knives and scrapers made from the flakes. He was probably an expert scraper and preparer of animal skins—which he no doubt put round himself when for the last time the ice came back and he had the temerity to stay and face it. One other terror he had faced already, and that was the sabre-toothed tiger, that amazing creature, bigger than any modern tiger, that sported great scimitar-like fangs with which he must have punctured the hide of his victims so that he might suck their blood. Man was no doubt glad to see the back of that enemy—and would have been glad to know that it never returned, for by the time the warm climate came up again the sabre-toothed tiger had disappeared from the face of the earth.

Unfortunately, by that time Neanderthal man had also disappeared from the face of the earth. He is a pathetic figure, this near relation of ours, and somehow likeable too, for we always have a sympathy for the unlucky and the under-dog. He gets his name from the *thal* (pronounced "tahl") or dale of Neander in West Germany, where one of his skeletons was discovered just before that crucial date of 1859—another had been found earlier but no one had taken much notice of it. He *may* have had a shambling gait, and his forehead was certainly lower than ours: a brain as big as the best of us but not in the part that matters most, which is in the front. He had enough front-brain to be able to talk but not, one would guess, to think very clearly. One can imagine him, trekking in his little tribe or family group: the father, the powerful "old man", respected and half feared; the mother respected and half worshipped, because she has done that most wonderful thing, given birth to them all; all of them searching for food, for animals to waylay or trap, all of them trying to communicate with each other, to get across ideas to each other—"let us do this, it is dangerous to do that!"—all of them afraid of the enemy that lurks beyond the next crag or thicket, the imagined enemy or the real enemy that may be lion or bear or tiger or, as the warm climate comes to an end, the great gallumphing mammoth, and finally the wily terrifying *man*.

That must have been the Neanderthaler's final fate, to succumb to a more successful and inventive kind of hunter, to a more successful type of human being, *Homo sapiens*. The Neanderthal type has been discovered over most of the then habitable world; and the significant fact about him is that his later skulls are often not, as one would expect, less brutish, but more so. He may as they say have become *over-specialized* to meet the last Ice Age, may have grown tougher, thicker skinned, thicker skulled—and for that very reason no match for the new and brainier rival who finally ousted him and inherited a world that was at last leaving the Ice Age behind.

So we come to ourselves, *Homo sapiens*, "Man, the wise", and to the comparative recent time (thinking in terms of pre-history, not history) of forty-or-so thousand years ago. *Homo sapiens* suddenly appears upon the European scene in the shape of what we call Aurignacian Man. That does not mean that he has suddenly appeared in the world. He must have appeared elsewhere—South-east Asia perhaps—a good long time before. There has indeed been found a skull in Kent, which causes some archæologists to claim the entrance of our own species into Europe much earlier. But that is not certain or agreed: let us stick to the Aurignacian.

He and his like were assuredly fine hunters,

and fine upstanding men too—finer specimens on the whole than most of the human race is today. Their bones have been found in a cave in the Gower coast of South Wales, called the Goat Hole of Paviland—found a long time ago however, 1823, so that they were at the time dubbed “Romano British”. The find was christened incidentally “The Red Lady of Paviland”, the redness being correct—the reason will appear later—but the sex wrong, the skeleton being a boy’s.

However, the find that gave these people their name was made in the South of France, on the northern edge of the Pyrenees near a village called Aurignac. It was a rabbit darting down a hole that brought this find to light—no less than seventeen skeletons. They were called *Gallo-Roman* this time, and they were reverently and decently reburied, only their possessions that lay beside them remaining. Fortunately for archæology, however, another enthusiast, successor to Boucher de Perthes, a French lawyer called Eduard Lartet, heard about the discovery and hurried down to examine. He possessed an English friend called Henry Christy, who combined great wealth with a passion for visiting museums, sparked off originally, they say, by his visits to the Great Exhibition of 1851. The two men, not finding very much at Aurignac, transferred their attention a hundred miles or so farther north. They went to a district called the Perigord and

a valley that was to become famous, a valley of limestone cliffs and deep rock shelters and a swift running river called the Vézère.

Stone Age men had liked this valley, very much, finding the deep rock shelters to their taste. They lived in it for generation after generation, more than one set of people, all hunters but not necessarily always friendly to each other. Here, in one layer, Lartet and Christy found the same sort of flint tools as at Aurignac: the same "Aurignacian" people therefore. Then, unhappily, Christy died. Lartet took on his son as assistant, and it was his son, in 1869, who made the most startling of the discoveries. It was railway construction, not rabbit, that opened up this cave—at a village called Cro-Magnon. Where the modern hotel bathroom is now said to be, they found the evidence of—a murder.

Murder was not of course the important archæological discovery. But it did have its significance. Here lay three men, a woman and a child, and they had been bashed on the head. Perhaps a family feud? But perhaps on the other hand a deed of revenge by a party of those unhappy, inferior dispossessed people the Neanderthals? . . .

Of more certain importance were two other facts about these five Cro-Magnon skeletons: they wore necklaces of pierced shell and animal



What Britain's first true men (Cro-Magnon type) may have looked like

teeth; and they had about them tools of bone as well as of flint.

Not very startling facts, you may say. But the same sort of thing had been found at Paviland and would go on being found, often increasingly so, as more remains of the true-men hunters came to light. These men, you see, were *progressing*, and rapidly. Necklaces, personal adornment: that meant time to think about themselves. Bone implements: that meant that flint was extending from its use as a tool to its use as a tool to make other tools.

In fact we have now reached in our history not the heyday of mammals, which has probably already passed, but the heyday of animal-hunting.

These men—Aurignacians; Solutreans and Magdaleneans that followed them—were prosperous. For them the worst of the cold had gone; and over their rolling grasslands roamed great herds of grazers: bison, wild cattle, wild horse. Theirs was indeed the “happy hunting ground”; perhaps like the Red Indians, whom in their way of life they must have much resembled, they too could think of no better heaven than a land like their own stocked with even greater numbers of animals for the chase.

Chasing them they now were, undoubtedly. Hand-axe user perhaps did not do much more than waylay the sick or unwary animal at the tail-end of the herd; Neanderthaler perhaps did not do much more than lay traps. But these true men invented the spear, and later the spear-thrower, and they really hunted. The hunt must have become *organized*, not an individual or family affair, but a tribal effort, with scouts and beaters. Perhaps sometimes it amounted almost to a massacre—there is evidence at Solutré in the valley of the Loire of great herds of horses being skilfully manœuvred to commit suicide over a precipice. We speak of “Cave Men”, and we picture, probably rightly, the earliest of them creeping into shelter, disputing their home with the cave lion and cave bear. But these men must have been cave-owners in their own right, and that only when it suited them. In the summer they no

doubt set forth on long treks, rigging up shelters of boughs and skins as it suited them, moving on and gorging themselves with meat in a sort of gross, elaborate, season-long picnic. . . .

Flint tools became elaborate too: tools for cutting, scraping, piercing, planing, smoothing. One typical kind, called a *burin*, might be called the equivalent of a spoke-shave. These men must have made many things of wood, which have decayed and disappeared; they made many things of bone and antlers, which have remained. Their flint weapons were beautiful: the Solutrean "laurel-leaf" spear-head is probably the most skilful thing ever made in flint. Chief among their bone or antler implements were barbed harpoons, and awls and needles. What do you do with awls and needles? You *sew*. Skin clothing must have been taking on an appearance vastly superior to the roughly dressed pelt tied over the shoulders.

In this description we are admittedly lumping a number of different peoples together. But however different in type or temperament, these were all men like ourselves and all hunters, and there is not room in this small book to follow all the classifications of the archæologist. Over these twenty or so thousand years that saw the successful reign of the later palæolithic peoples—an enormous span of time to our way of thinking yet short indeed compared with the vast slow sameness of

the æons of the hand-axe users—over this span we can picture as it were a flux of tribes, moving and mixing rather like the ingredients must mix to make a multi-coloured plastic. Sometimes no doubt the tribes fought; sometimes they mixed peacefully, or kept themselves to themselves. But they seldom stayed for very long in one place. No passports in those days, and no English Channel. Over the tundra and then the steppes of Spain and Hungary and France and Britain, with very little in the way of forest to impede them, they wandered, these men, and ate, and hunted, and thought.

Yes, *thought*. All men think; that is their nature. In the next chapter we will try to see what the mighty hunters of the end of the Old Stone Age thought about themselves and the world they lived in.

# 5

## MIRA, MIRA!

“I DON'T believe it!”

There have always been people to say that in archæology, the cautious-minded people. Occasionally, of course, they are right, as were the minority who refused all along to countenance the Piltdown “man”. More often they are wrong—as were all those who refused to believe in any man at all older than a few “ante-diluvians” and the Adam of 4004 B.C. These people *had* to believe after 1859, if they did not wish, that is, to find themselves relegated in the end to the shelf for fuddy-duddies and ignorant diehards.

It was a strain for most of them nevertheless. And then this Monsieur Lartet, after following the rabbit down the Aurignac cave, was seeking to make people believe something even more fantastic. He found some bones with pictures of animals—quite good pictures—engraved on them. Lartet wanted to make out that these Stone Age people had done the engraving. It was disturbing

enough to hear that man was so ancient that he lived with the mammoth and cave bear and bison. But to say that he was an artist and could draw these creatures—that was ridiculous.

We know of course that it was not ridiculous. But it *was* rather extraordinary.

A dog and then a little girl were to make it all even more extraordinary. On the lovely northern coast of Spain lived a Spanish nobleman and landowner with a name even more resounding than de Perthes': Señor Don Marcelino Santiago Tomás Sanz de Sautuola.

One day a hunter chasing a fox on the Don's land suddenly lost all trace of his dog. It had disappeared down a cranny of a rocky outcrop of the hillside of Altamira (Spanish for Highview). Putting his ear to the cranny the man could hear the reverberating echoes of his dog barking and whining below. He pulled away the loose stones, and managed to rescue his dog. Then curiosity made him enlarge the hole and go down himself. A roof-fall blocked his way, but behind there was obviously a cave of enormous extent. He went home and told his story.

It took seven years to get to the ears of De Sautuola. But the nobleman was cultured and curious as well as rich, and he resolved to look for himself. He found split bones, and sent them to an expert. The expert gave his verdict: bones of bison, wild horse and extinct stag; split open

by man. De Sautuola let four more years slip by—he was a busy family man and had other interests—then he saw an exhibition of finds from the famous Perigord that Lartet had been exploring, and had his interest renewed. He revisited his cave; and this time he took with him his daughter Maria, aged twelve.

Young daughters are not as big as grown men and are also liable to become bored with their fathers' activities. While her father squatted beneath the low roof and scrabbled about for flints and bones on the floor, Maria explored and gazed upwards. Suddenly she came running back: "*Papa, papa, mira, toros pintados!*"—"look, painted bulls!" The little girl was right: the wonderful paintings of Altamira had been discovered.

That was in 1879. The usual disbelief arose—De Sautuola got a local artist to make copies, and it was said, amongst other things, that this man had painted the originals! But gradually other painted caves were found, over thirty of them, of which Lascaux, not far from the murder-scene of Cro-Magnon, and not discovered until 1940, is the most famous. People once again had in the end to swallow their doubts. The Aurignacians and the Magdaleneans (not the Solutreans, who seem to have been more practical people) were not only efficient hunters, they were also imaginative artists. They scratched and drew and etched and painted pictures of animals wherever they

felt the urge, sitting down to do a "miniature" as we should call it, on a piece of bone or antler, or stretching up to do a vast "mural" in the inaccessible depth of a cave by the flickering light of a torch.

Now why did they do it?

Remember that Man was once an animal. It would be absurd to suggest that the men of the Old Stone Age were mentally, intellectually, aware of this fact as we are who have been taught about Evolution. But they must have been subconsciously aware of it, they must have *felt* it. We are on safer ground when we say that at the very least the Stone Age hunter was highly aware of animals—in fact that is about as much an understatement as to say that Blondin knew what a tightrope was or Stirling Moss is highly aware of motor cars. Stone Age man saw practically nothing else but animals—was sorry when he could not see them and went around looking until he did. He not only ate animal, but *lived* animal, *thought* animal, and so he *drew* animal—it is as simple as that.

Yet not quite so simple. He had an ulterior motive. Or rather he had a motive which we should call more practical than the mere desire to portray something he liked and lived with, though a motive which would seem to him mere part and parcel of his general outlook towards

animals. That he did like animals we need not doubt: those who live with them and seek to control them always do like animals. But he also depended upon animals for his livelihood. He was therefore anxious that they should be plentiful and that he should be successful in his hunting of them. He drew and painted consequently for *magic* purposes.

To explain what one means by that word is not easy. Magic has been called the primitive man's science. It is his substitute for science. It is his way of trying to gain power over Nature and his environment as science does for us. It was a matter of exerting *influences*. If you enacted a scene, if you pretended a scene, if you drew a happening, then—then, if you wished hard enough, if you acted with due ceremony and seriousness—you could make that scene really be enacted, that happening really happen. *Like*, as they say, produces *like*. Do a ceremonious dance dressed up as animals and with one man as a hunter successfully killing you off; then the next day when you all went hunting you would, with luck, be as successful in your killing as in the ceremony. Draw your animal with a spear sticking in him or with his heart pierced, and you would on the morrow really pierce his heart. Draw your animal pregnant, about to have a baby; and it would have a baby, which is what you wanted because then the baby, all the babies, would grow up, and there would be more animals to hunt. . . .



Two palæolithic cave paintings. The top one is unusual, because a man is shown—and he is not drawn realistically and has a bird's head!

Something like that. It may seem foolish. But it is the way primitive people all over the world have thought and behaved, and no doubt the palæolithic peoples were no exception. And the cave paintings often do show animals pregnant or with spears or darts sticking into them.

Not only that, but the paintings are always in the dark recesses of the caves, very difficult to reach. No one would have painted them there for preference. We can therefore legitimately imagine *ceremonies*: an awestruck audience; the artist working to the accompaniment of some ritual or chanting; or the work already done and the great looming pictures looking down on a mime and dance. Whatever it was that took place in the dark recesses of those caves amidst the reverberations and in the flickering light, one can hardly believe that it was not to the participants quite overwhelmingly impressive.

There would be other ceremonies too. For it is by ceremonies that a tribe is held together; and it is very important that a tribe shall hold together, for by himself the primitive Stone Age man will have little chance in his struggle for survival in a very harsh world. When the boys of the tribe reached manhood there would for instance almost certainly be a ceremony. Some of the Red Indian "rites of puberty", as these are called were very cruel indeed, a terrifying test of the young man's

ability to withstand suffering. We have no evidence that Stone Age men practised such rites. But they were, as we have said, very much the same sort of hunters; and of one harsh ceremony, whether at puberty or some other time, we have some evidence, indirect but hard otherwise to explain. It brings us back to the cave paintings.

On some of the cave walls human hands have been outlined, usually by pressing them against the wall and spraying paint round them.\* And very often some of these outlined hands show one or more fingers missing. Experiments have been made: you cannot obtain quite the same effect by doubling a finger under. A ceremony of lopping off a finger then? It has indeed been done ceremoniously in many recently primitive tribes. But why? As a sacrifice perhaps, as a bargain with another human being in the way that we more innocently exchange talismans, as a bribe to the gods to give what they wanted. Something of that sort. . . .

And did the palæolithic hunter believe in God or gods?

We are hardly ever likely to know for certain. But one thing we do know: he did hold beliefs of some sort about death. The hand-axe using half-men leave no sign of having buried their

\* The cave artists used *earths* for their paint—oxides of iron (red ochre) or of manganese, for instance—mixed with water or fat.

dead. But the Neanderthalers and the Aurignacians did. They buried them usually wearing their ornaments and having beside them their stone tools and weapons. The bones of the youth of Paviland were stained red with ochre; and red, the red of blood, is often regarded as a symbol of life, as something that bequeathes life, in this case surely a life after death. The Old Stone Age men therefore may be credited with some idea that there was or could be another life, a life of the spirit without the flesh.

Are we crediting too much, building on too flimsy foundations? Not so long as we do not build too elaborately. We must credit with no more than dim, vague, rather dream-like thinking. Nor must we imagine ceremonies taking place at other than the most important occasions of life. For most of his time Old Stone Age man was living no doubt a simple, uncomplicated, pretty thoughtless life. There are those carvings and etchings on antlers and bones. Again they are nearly always of animals. But we need not this time give them deep religious or magic or symbolic meaning. They were done, we may believe, just because the artist could do them, and liked doing them. If you are clever you like exercising your cleverness; if you are skilful you enjoy exercising your skill. And a large number of the men of the Stone Age were surprisingly clever and skilful. . . .

And one last word about art and skill and thought. No more than a few scratched pictures on bone have been found in this country. But our few palæolithic persons were of the same race as the masters of Lascaux and Altamira. They were an offshoot, the people who had wandered farthest; there would not be enough of them to support a tradition of great painting, even to support physically one of their tiny tribe who didn't do his fair share of work and hunting. It is the Gray's *Elegy* idea—the Stone Age equivalent of village nonentities, "mute, inglorious Miltons", who might have been great if only they had had the chance. Had someone but encouraged him, that poor youth who was the "Red Lady of Paviland" might have made better use of that red ochre in his lifetime!

# 6

## POTS AND DOGS

ALL good things must come to an end. Very curiously, the change that brought about the break up of the old hunting way of life in Western Europe was one that we nowadays should welcome and that indeed was finally made use of as a step in the right direction, the direction of becoming civilized. It was a change of climate, for men the most fundamental of all changes because they can do nothing to stop it. Round about 15000 B.C. or perhaps a little later, the ice began to retreat and the last Ice Age was ending. Around 10000 B.C. it seems to have returned somewhat; but by 6000 B.C. at latest it had gone back to roughly its present limits, and the face of Europe was changed. The retreat had profound effects. One as we know was the filling up of the North Sea; that was one of the later effects. Another, farther south, was that fertile areas such as what is now the Sahara *became* Sahara, that is to say gradually changed to desert. For Western Europe, Britain included, the change

meant growth of forest, first forests of pine, then later the deciduous trees, those that lose their leaves in the winter and come out with a fresh coat in the spring. Oak grew most profusely, glades and glades of oak everywhere.

Palæolithic man probably did not stop to admire the new green beauties of spring; he had more pressing things to think about. Where were the animals he hunted? They were disappearing.

That the change was so slow must in a way have made things more difficult: it would make it more difficult to believe that anything serious was really happening. The old grandfather may have mumbled about how much better hunting was when he was a boy. But who listens to old grandfathers? Things would be all right again in a year or two.

But they were not all right. Some animals seem to have stayed and adapted themselves; the auroch or *Bos primogenus*, the original wild cattle, for instance, though probably in reduced numbers. Creatures that loved the forest, the wild boar and the deer, increased. But the herds of the steppes, the wild horses and the bison, the herds of the tundra, the reindeer and the mammoth: these disappeared. Their grazing lands vanishing under a forest of trees, they did two things: ceased to thrive and so dwindled in numbers; followed what was left of their grazing up towards the North.

There were two things left open for men to do:

follow the beasts, or evolve a new way of life.

In truth they did both. Some, the more die-hard conservative but also in some ways the hardier and more adventurous, followed into the north the beasts that they had always hunted. The track of these last men of the true Old Stone Age has been fully traced only recently—at one time it was thought that the palæolithic people had just petered out. Up through Germany and Czechoslovakia, up through Scandinavia and Russia they went, to arrive eventually in the Arctic—where, they either became or taught their way of life to the Eskimos. They went even farther, encompassing surely the longest trek in history, which was up to the north-east corner of Asia, to cross by what is now the Bering Straits or the long string of the Aleutian Islands and which may have been a land bridge, into the Americas, there to populate the virgin continent for the first time with the race of man and to infiltrate slowly over the centuries and millennia down to the very southern tip. The date of this is disputed: some would have it as much earlier, but most would say about 10000 B.C.

We will have one last look at these palæolithic hunters as they pass out of the picture, stubbornly sticking to their old way of life—whether any left the caves of Devonshire or Derbyshire to join the party we shall never know; but they might have done. In all, they did not do so badly with

their hunting, especially with the mammoth. We know a good deal about the mammoth from the fact that a few of these in Stone Age times had the misfortune to fall, as it were, straight into a refrigerator—into mud, that is to say, that froze over them. Russian excavators have been able to examine the hide and hair of these beasts, even—somewhat hurriedly no doubt, before it went bad—to taste their flesh. Mammoths are shaggy beasts, as tall at the shoulder as the Indian elephant, with upcurving tusks ten feet long, and a skin much tougher than any old boot. Mammoth bones have been found in British caves, in very old layers of Stone Age history: those who ate them can hardly have done more than find a dead beast or finish off a dying. But these last of the hunters did much more: they slew the mammoth by the hundred and neatly stacked—a stack has been found—their ivory tusks for future use. Nevertheless it is hardly conceivable that the spears that these people used could have been thrown with strength enough to pierce the hide. How they slew the mammoth is not known; perhaps by trapping, perhaps, as with the horses, by herding over a cliff or precipice. However they did it, it must have been a dangerous occupation.

Now we will return to the people left behind. They by contrast were to gravitate to a form of hunting particularly undramatic and undangerous.

They were to go shellfishing, oyster and cockle hunting. It was the shells they left behind that gave them away.

These people are called the Kitchen Midden folk, for reasons that will become apparent. They lived in a period sometimes called the *Mesolithic* or Middle Stone Age, not a very useful term because no one can ever agree just when the age began and ended but nevertheless helpful in stressing the idea that this was a "middle" period or connecting period, not in fact very successful or significant, between the Old Stone Age and the New. They lived, these people, through centuries when for the only time in its history the space we now call the North Sea was habitable: earlier it had been ice; later it was to be water.

In Kitchen Midden times this area was probably river-threaded and lake-studded, with the sea's edge gradually coming down from the north. We know that they inhabited it because one of their bone fish barbs has been dredged up by a modern fisherman. We are naturally never likely to find very much more. But on either side of the area, the west coast of Holland and Denmark, the east coast of England and Scotland, what they left behind has been stacked up in great mounds.

The trouble was that for a long while no one recognized these mounds for what they were. About the time that William Pengelly was demonstrating to sceptical colleagues in Devonshire that

his ideas were irrefutable another gentleman in Denmark called Jens Jacob Worsaae was poking about in a colossal heap of empty shells and other débris and forming new ideas of his own. "One might," he wrote in his diary:

One might almost be tempted to believe that this had been a sort of eating-place for the people of the neighbourhood in the earliest prehistoric times. This would account for the ashes, the bones, the flints and the potsherds. But this is hardly more than a guess, scarcely to be taken seriously.

After further examination he did take it seriously and prevailed on other people to do the same. And he was right—except that the prehistoric times were not the earliest and that it was more than an eating place, it was a living place as well.

Gradually the way of living of these people has been pieced together. They were adapting themselves, as best they might, to the new surroundings that changing Nature had forced upon them. The forest had come, and had, as it were, squeezed them to the water's edge. They made the best of it, by using the two new environments that faced them, and by making these provide the necessary food. They hunted in the forest after the red deer and the roe deer, the wild boar and the auroch. They hunted in the sea for fish and for seal. They hunted along the rivers and inlets for wildfowl.

They collected shell fish. And what they could not eat they threw over their shoulder in the way that Henry VIII is said to have thrown his chicken bones and nobody even bothered to pick them up: result, they lived on their own refuse dump, their own "kitchen midden"—hence their name.

Now this is messy, and probably most unhealthy. But it is really no more than what most people have done through the ages, including the people of Troy and the glorious East as a whole, forming what later generations know as *Tels* or hillocks or mounds. The only difference is that these particular mounds, partly because the people lived there for a long time and partly because there is a lot of shell to little meat in an oyster, were often very big indeed. So long as you could stand the smell—and people can grow used to most things if they are brought up with them—this method of living must have saved an enormous amount of trouble.

With what sort of homes these people of the water's-edge of Britain and the Continent managed to provide themselves, nobody knows. They must have managed some sort of tree felling and hut building one hopes. The weather probably was mostly good. But one cannot help feeling that mesolithic times were on the whole poor times and rather miserable.

However, we must not be unfair to these people, nor unnecessarily sorry for them. There are found

with them the first traces ever of three things that were likely very greatly to help them and gladden their hearts.

The first is a comb for the hair. Nothing very much in that, perhaps. But most girls can probably remember how uncomfortable it is to have a tousled head for long—and most boys know how much nicer they look when it is untousled. A comb does show an increase in self-respect.

The second invention is of great practical importance. It is that of the *pot*. The necessity to boil shellfish—or if not a necessity, a desirability at any rate, both for pleasantness and for avoidance of occasional poisoning—must have led to this invention: someone had found out how to fire clay, so to alter its chemical nature that it became hard and indestructible if brittle. The first pots were big, crude and rough, and with a pointed bottom which you presumably nestled into the heated boulders. But they *were* pots.

The third help for the Kitchen Midden people was not an invention but a happy thought—and who shall say who first had it?

Then the Woman picked up a roasted mutton bone and threw it to Wild Dog and said, "Wild Thing, out of the Wild Woods, taste and try." Wild Dog gnawed the bone, and it was more delicious than anything he had ever tasted. . . .

You remember that episode from Rudyard Kipling's *Just So Stories*? The sequel was that Wild Dog and Woman made a pact, to the effect that woman should feed dog and dog should guard woman by night and help man to hunt by day. "His name is not Wild Dog any more," the woman told her husband, "but the First Friend, because he will be our friend for always and always. Take him with you when you go hunting."

And that surely, in all seriousness, must have been the way of it. The dog becomes the first domestic animal, and mesolithic man had the sense to make it happen. In the "in"-hunting of the forest the dog's nose is more efficient than the man's eyes; in the art of fowling, the faithful animal who is willing to "retrieve" and to let the man take the find from his slobbering and desirous mouth is a friend indeed.

There are other people beside the Kitchen Middeners living in and wandering about Western Europe and Britain during these scores of centuries between the last retreat of the ice and the introduction of an entirely new way of life that begins the Neolithic Age. Names do not matter very much—Capsian, Tardenoisian, Maglemosian, Azilian; you can sort them out if you wish with the aid of the textbooks, always remembering that today's sorting may not be held correct tomorrow and that all "peoples" have a tendency to change, to inter-marry, to swop tools and methods and

"*know-how*". Azilians we will mention again, at the end of this chapter, for they had a peculiar habit which is perhaps revealing. All of these peoples were fundamentally doing the same thing, trying rather desperately perhaps and not with exactly spectacular success to adapt themselves to the new leafy environment. Some managed rather more successfully than the Kitchen Middeners to cope with the forest, that is to say, to cut it down. They used a heavy flint sunk into an antler sleeve, the whole hafted at right angles on to a wooden handle: the first tree-felling axe. Others in their flint tools used the very wood that was now so abundant. They started making a new kind of flint the *microlith* or "tiny stone", beautifully made cutting-edges of less than one inch long. These they fitted into wood, *in a row*. The microlith is often regarded as the typical flint tool of the Mesolithic, the "Middle Stone", Age.

And a form of microlith was the arrow head. At this time, the bow and arrow first comes upon the scene—in Africa it had most likely come earlier. Here was a brilliant invention, well fitted for forest hunting. It might be called man's second machine, the first being the spear-thrower already mentioned—you fitted the spear into a notched stick and holding the stick over your shoulder gave an overarm swing and so won an added speed of throw. The bow is really an outstanding example of energy-multiplying: you store up

energy by the slow pull of your arm and then let it go in a flash and with a twang—the inventor of the bow and arrow must have been very pleased with himself.

As for the Azilians, coming perhaps originally from Spain, they are famous for a most curious

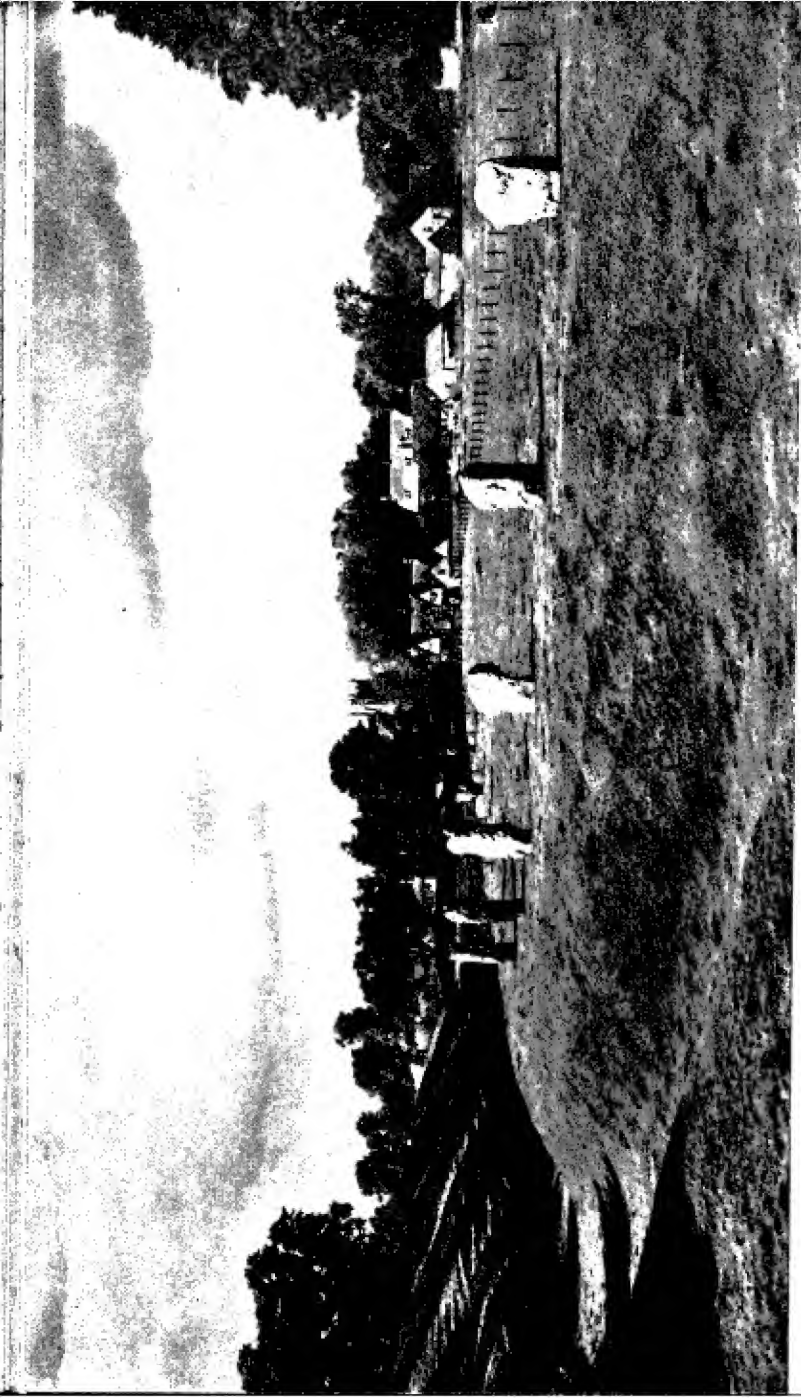


The spear-thrower

form of painting, about as unrealistic as a modern surrealist's effort and, if anything, even less intelligible. They took smooth rounded pebbles and painted patterns on them, hooks and stripes and crosses. Recently two patient investigators, the French Abbé Breuil, famous as an interpreter of the cave paintings, and a German, Professor Obermeier, have managed to gain some understanding of these *painted* pebbles. They took all the "stylized" pictures of men that Old Stone Age people ever drew, shorthand pictures such as we still do nowadays with single strokes for body and limbs, and showed that it is possible to draw up a row of these, gradually becoming more and more simple and less and less like the original, and ending up very often with the marks on these stones. In other words, here had been going on through the generations a copying that had been



How the palæolithic people of Europe could draw: a lovely bull's head from the caves of Lascaux in France. (*Photo: Fernand Windels.*)



The famous and unique Avebury. (Photo: Ministry of Works.)

made slavishly but not very accurately until in the end it had no recognizable likeness to the original whatever, and which yet was done just because that was how it always had been done and



The strange painted pebble of mesolithic times

it would be wrong to do anything else. The purpose? To gain some magic power or other no doubt—which is all we can say.

All of which brings us back to a not very complimentary view of the Middle Stone Age people and their not very brilliant way of life. About the best one can say of them was that they didn't do too badly in the circumstances. But circumstances were against them, and they could think of no really brilliant way of getting out of a rut, the rut of forest and water hunting. They were waiting for something startling to happen, without knowing in the least what it was.

In Britain the traces of the Middle Stone Age people are not many, though they are greater than of the mere handful of the Old Stone Agers. Along the East Coast the Kitchen Middeners left

their fishy mark; up the river Tay some of them left behind a boat. In Sussex and Surrey and a few other places where there is heathland and sandy soil some microliths have been found, and at Farnham there are traces of the building of some huts. At Oban in the West of Scotland people of the Azilian culture left behind amongst other things a polished stone that archæologists have christened a limpet hammer. Not much certainly, though quite probably many shore sites on the West Coast have now been submerged. Britain in other words is still an outpost. But in the next age, and in spite of being by then cut off by the sea, she is going to begin to come into her own. *Neolithic* Britain is something. . . .

# 7

## NEOLITHIC TOUR

**I**F you get out of your car—or down from your bus, or off your moped, or just stop walking—if you will do one of these things at the top of Overton Hill, which is four and a half miles west of Marlborough on the A4 road to Bath, then you may start a quick tour of a nicely representative collection of neolithic British sites.

The first stop could hardly on the face of it seem more modern: on the north side of the road a transport café, on the south side a layby that is almost certain to be crammed with lorries. But go behind the lorries and you will see a gate and a polite Office of Works notice that says that here lies, or rather lay, "The Sanctuary". Frankly, you will not find it very thrilling. Here once stood a wooden building in the shape of a letter O, that probably housed some Stone Age equivalents of the Indian totem pole. Then had followed a circle of standing stones, but these have disappeared, split by fire and broken up by the local farmers perhaps, for that has often been their fate. You can

at least pause to wonder that though the stones have gone it has still been possible to trace where the wooden posts once went into the ground.

Pause too to look at the view, at the sweeping downs all around you: these neolithic peoples always seemed to choose sites with commanding views for their holy or important places.

Imagine what ancient scenes you like—nobody can gainsay you, nor are anybody's imaginings likely to be all that accurate—and get back in your car or what-have-you.

Having passed through the village of West Kennet, stop when you have travelled a little over a mile. By a cottage, again on the south side of the road, stands another Ministry of Works notice, which directs the way to "West Kennet Long Barrow" and adds—again politely—a plea that you will not spoil the crops.

You are more likely to spoil your shoes, unless it is dry weather and high summer; but do not mind that. When I passed the muddiest spot I was rewarded by the sudden flight of a couple of wild duck. You mount the steepish slope, to the bare back of the hill, and may reflect that the scene cannot have changed so very much in the last four thousand years: more mud in the valley then, perhaps; much more woodland; of course no roads, no fences, no brick cottages; but the same long sweep of the downs. This time when you reach your objective you will I think really be

impressed. The entrance to this long barrow\* is guarded by colossal slabs of stone, up-ended and sunk into the ground, to stand unchanged as sentinels through the long tide of centuries. The entrance has been excavated and paved with granite chippings for your convenience; not only that but a beneficent government department has let glass windows into the roof. Inside there are five little round chambers arranged rather like an ace of clubs or a blackberry. You are in a burial chamber, in the Stone Age equivalent of a cathedral crypt; here skeletons were discovered. Think of it lit only by the most dim daylight from the stone-



What a long barrow may have looked like

\* "Barrow" is originally the same word as "berg", a hill or mound. Another term used is "tumulus", Latin for the same thing. Long barrows are neolithic, but round barrows—you might have noticed some clustered near to the Sanctuary—are nearly always from the Bronze Age, containing not skeletons but the ashes of the departed. But they are outside the scope of this book.

guarded entrance and by the flickering torches of the burial party—then come out, quickly if you wish, and climb to the top of the barrow, and stand in the fresh air and again admire the commanding view. . . .

Come back to the road and move on westwards only a few hundred yards. This time on the other side of the road—you can hardly have helped noticing it already—stands an enormous pimple of a hill, conical, isolated and surprising. Water lies round it like a moat. Climbing is hard work but not difficult. The top is flat, and the view is even more impressive. You are standing on the biggest man-made hill in Europe. What was it made for? You may well ask—but nobody knows. Charles II and his brother who would later be James II once climbed this hill, in the company of a gentleman called John Aubrey whom we shall meet; all that James seems to have noticed were the peculiar snails that then infested the hill—he appears to have thought they might be edible.

Follow the royal footsteps down again. Then move on for another mile or less and, finding a very modern roundabout, take the right fork marked Avebury. Do not yet go into Avebury, however, but turn first left to Avebury Trusloe and follow the signposts to Windmill Hill—another and more famous Windmill Hill. The road becomes a very bumpy chalk-white track—if you are in a car, get out and walk! Wide farmlands lie on either side of you. There are many birds. A magpie rose


on my left as I walked: I saluted it, as I am sure my neolithic ancestors would have saluted it, for a bird rising up on the left is a very "sinister" omen. At length you reach the wide bare back of the hill where are laid out and enclosed the earthworks that have been excavated and mostly put back from whence they came. You have to go on over the brow of the hill to see the deepest and most impressive bank and ditch. Here is one of the most important neolithic sites in the country. But once again I fear you may be rather disappointed. If you are very lucky you might find a piece of worked flint, or a broken piece of late Stone Age pottery. All I found was the china head of a doll, date anything from 1900 to 1960. But here there met for important purposes (as we shall learn) people more ancient than any woad-tattooed Iron Age Celts or round barrow builders of the Bronze Age, in fact Britain's first and earliest farmers: if you could be transported back just about as many years before Christ as you now live after, you would see them.

However, you will not see them. So make your way on to Avebury—which is a village uniquely set in the very midst of a great stone circle, less complete but in many ways more impressive than Stonehenge.

One is best left I think to wander about Avebury by oneself. The main feature is a colossal circle of bank and "fosse" or ditch, and remember

that time levels all things and once the bank was even higher and the ditch even deeper. Now sheep tracks run along the banks and all is grass grown and cosy. But some of the great stones of the inner ring still stand, the monoliths. These are not carved or hewn; they are just slabs or pillars chosen for their shape and dragged from the nearby downs. Some are colossal. To the south-east they continue in a long double avenue; many have disappeared, broken up like those at the Sanctuary; but others stand intact, facing each other like great wide women and tall thin men. You can follow these; and as they do in fact lead back to the Sanctuary you will conveniently have finished your tour at its starting point. Or you can visit the Avebury museum, and see a skeleton of one of the dogs of the Windmill Hill people, or their pottery which they decorated with a pattern made it seems by the ends of the tiny bones of birds. Or you can take yourself by your mode of travel, whatever it is, and go south some twenty miles, and get out again, and pay your money, and stand under the towering trilithons of Stonehenge, and wonder all over again. . . .

For a very long time people have wondered about Stonehenge and Avebury and the other megalithic\* monuments that are studded along

\* A *megalith* is a large stone; a *monolith* is a single stone; a *trilithon* is three stones arranged as a lintel, .

our coast, and at the earthworks and barrows that bulge out gently from our downlands and rounded hills. This is hardly to be wondered at, for there are so very many of them. Here is from our point of view the great thing about the *New Stone Age*: Britain becomes important. One could go about indefinitely and never find anything palæolithic. But the New Stone Age and the Bronze Age into which it imperceptibly slid: that is a very different matter. No longer only a small football crowd; but many people, many tribes and obviously different tribes. Obviously too, they were pretty busy tribes, doing something new with stone: still using it to make tools and weapons but also taking great slabs of it and carting them about, and doing with them—what? Surely regarding them, when they had moved them and set them up, as at least highly symbolic and impressive and important.

Up to the time of Charles II or thereabouts, people regarded the old monuments largely with superstition. Occasionally they would rob those sepulchres which were the long barrows—the Danes and Saxons did that, and in their own country too—but they must have done it with trepidation. Mostly these relics were Fairy Rings or the Devil's Smithies or Giants' Graves. Sometimes, as we have seen, people had the temerity to knock the stone ones down or break them up and use them for their own purposes. But mostly they just ignored them: the Bath road ran slap

through Avebury for a long time, but no one had time left from getting there, or from getting stuck in the mud, to so much as mention the place. That is, until the time of our guide to royalty up man-made hills, John Aubrey. And he came across the place by accident. Here is how he describes his find:

Salisbury-plaines and Stonehenge I had known from eight years old: but I never sawe the country round Marlborough till Christmas 1648, being then invited to Lord Francis Seymour's, the Honourable Mr. Charles Seymour, with whom I had the honour to be intimately acquainted, and whose friendship I ought to mention with profound respect to his memorie. . . . The morrow after twelf-day Mr. Charles Seymour and Sir William Burton of Tokeham, baronet, met with their pack of hounds at the Greywethers. These Downes look as if they were sowed with great Stones, very thick, and in a dusky evening they look like a flock of Sheep: from whence they take their name: one might fancy it to be the scene where the Giants fought with great stones against the Gods. 'Twas here that our game began and the chase led us (at length) through the village of Aubury\*, into

\* John Aubrey notes elsewhere that he hasn't altered the spelling to make it more like his own name but that according to local records this spelling seems more correct than Avebury.

the closes there: where I was wonderfully surprised at the sight of those vast stones, of which I had never heard before, as also the mighty bank and graffe [ditch] about it. I observed in the enclosure some segments of rude circles made with these stones, whence I concluded they had been in the old time complete. I left my company a while entertaining myself with a more delightful indagation [hunt or exploration]. . . .

It is a pity we cannot follow John Aubrey farther, and not only to his "good hunting dinner" at Kennet, for he would be a rather delightful companion. Some people have called him the Boswell of his time; he wrote, however, not of one person who was a hero to him, but many—he liked people and was interested in them. He was also interested passionately in the past. How does that happen to a person? John Aubrey grew up in an old Wiltshire country house, with history you might say all about him; he led a lonely childhood with time to read and think; he went up to Oxford, which is full of history; he lived through stirring historical times, with English kings losing their heads or being pushed out of the country. But quite probably all that has nothing to do with it whatever: you either are interested in the past or are not; and Aubrey was.

Charles II, having had his interest aroused, sent

his famous architect Inigo Jones down to report on Stonehenge, and Inigo Jones duly gave it as his opinion that the Romans had built the place to the glory of Cœlus the father of Saturn. Aubrey was justifiably scornful. Neither Avebury nor Stonehenge were Roman he said; they were *temples of the Druids*.

And he was absolutely wrong! Of that we may be now quite sure. We in our turn would not be much more wrong if we said that Westminster Abbey was built to the glory of the Atomic Energy Commission or the Colosseum for watching Cup Finals. But let us give this lonely, friendly and inquisitive man his due. Apart from the fact that by his enthusiasm and his writings he directed people's attention to these ancient monuments, he was also really much more right than his predecessors; he was in fact doing the same sort of necessary thing as did William Pengelly a couple of centuries later, and that was to push back the idea of time. At least everybody knew that the Druids had existed in this country before the Romans arrived.

But then, fifty or so years after Aubrey, came along another man, one William Stukeley, a doctor who was also a clergyman, and a pretty cranky one at that. He, as one might say, plugged the Druid idea so successfully that it became everybody's megalithic theme song until practically the present day. Stukeley in his old age, becoming obsessed with the idea of the Druids

and their importance, took out his plans of Avebury and Stonehenge again and reinterpreted them. An apparently non-existent avenue leading westwards out of Avebury was discovered, and this he averred formed with the ramparts a symbolic figure of "the snake leading from the circle", the fact that you would have to be up in an aeroplane to appreciate the pattern not worrying him in the least. He arbitrarily labelled the barrows around Stonehenge as the graves of priests, kings, druids, druidesses and archdruids, and constructed a "sylvan temple of Druids" in his garden, complete with mistletoe on the apple trees. Of course the Druids did exist as an ancient priesthood; they are described by Latin authors, Cæsar included. But the references to them are very few and somewhat questionable as to accuracy; and in any case by the time they are helping to fight the Roman Legions in Britain, Stonehenge is getting on for two thousand years old. For some reason, however, these Druids caught the imagination of our forefathers. The sooner therefore that we forget all about them in connection with Avebury and Stonehenge and all the other stone circles the better.

But, you may very well say, if it wasn't the Druids, who was it? If Druidism was not the driving force behind the creation of these surprising monuments, then what was?



It has taken pretty well all of the couple of centuries since William Stukeley to answer that question fully and properly, and by a survey spread over a very much wider area than either he or John Aubrey ever even contemplated. We shall have to roam considerably farther afield ourselves. Before doing so we may fittingly pay a final respectful tribute to those two highly colourful British characters whom we have met. Aubrey and Stukeley, by their interest, and more practically by their accurate reports and drawings of the monuments that were in their days much more nearly intact, put all subsequent archæologists very much in their debt.

# 8

## THE INVADERS

WE come to a Revolution. Between the time of their beginning and the time when the age of stone was slipping imperceptibly into the age of bronze, men managed some pretty big inventions and advances. The first was the use of tools. The second, we may think, was the use of fire, the third the use of speech. Now, after a long pause, as he enters the Neolithic, the New Stone Age, man achieves his fourth great success, a success that is going to change completely his way of life.

Put as simply as possible it was this. *Man learnt to become a farmer.* Perhaps we must amplify that a little from the start: man became a farmer and a herdsman. He learnt to do two things: sow and reap crops; herd and domesticate animals.

Obvious steps to take, you may think. But not a bit obvious to palæolithic persons. None so blind as those who won't see, and Old Stone-Agers did not want to see, being quite happy as free roaming hunters. But when hunting became

bad it was another matter: necessity—to quote another somewhat tritely irritating proverb—is the mother of invention.

Just pause for a moment and think what a change this twin invention is likely to make. If you are a hunter you are really no different from the other beasts that hunt, the wolf and the jackal and the rest. The only difference is that you do it more efficiently. You are a “predator”, with the rest. Albeit the job may be difficult and dangerous at times, you are no more than a food *gatherer*. But tame and domesticate animals, learn to breed from them and to live off them by their milk as well as their meat; at the same time take grain and sow it and look after it and wait for the crop: then you are not a food gatherer but a food *producer*; you are not a predator and parasite on Nature, but a partner with her.

This may sound a little too grand. It is true, nevertheless. Of course the people who were taking the new steps, who were carrying out this “Neolithic Revolution”, would not have looked at it like that; indeed there were some, as we shall see, who found distinct disadvantages in the change. But that does not alter the fact. Now, in order to discover how and where the revolution came about, we shall have to do what we said the later archæologists did, and cast our eye much farther afield: leave Britain and Europe and go to the Middle East.

Here, you will remember, the final retreat of the ice was turning the fertile lands into desert. The animals tended to huddle into the green spots that remained, the oases where springs bubbled up, the green valleys between or at the feet of the mountains, the outskirts of the swampy valleys of the great rivers. The hunters tended naturally to follow the animals.

The two perhaps found themselves rather on top of one another. But it needed more than mere propinquity for the first of the great twin ideas to occur to man and to be put into practice. It needed of course imagination, but also I think some tenderness and love. We have already suggested that the hunter loved and respected the animals he hunted; the potential herdsman and pastoralist had surely to do so even more. If there was going to be a partnership at all it had to be one of mutual trust. We can without shame at being too sentimental imagine a scene of two pairs of mother and daughter, one human, one bovine. The cow has strayed down with her calf from the herd to the valley pasture. The woman and the little girl meet the pair—and feed them, and corral or tether them, and keep them not too unwilling prisoners. So perhaps, and not on one occasion only, it began—it is another bargain between “Woman” and “Wild Thing”. When exactly it happened that the other side of the bargain was put into operation and the human child began to take the beast’s milk, heaven only

knows. It was rather a strange and adventurous thing to do; but pleasant all the same.

And the growing of crops? That is a matter of intelligent observation; a matter of memory too, and much more difficult an achievement perhaps for the primitive person, who has no need to think of time. Anyone can eat the seed of the wild grasses, the wild wheat that we call emmer. Anyone can throw away the chaff and the few seeds that it is too much bother to separate from the chaff. But to realize that the wheat that comes up a few weeks later is growing there just because you have sown it, that is not so easy. Somebody did it, however, and probably more than once. From that it is only a short step to the practice of keeping back some of your collected seed, of consciously and intentionally sowing it, tending it, and harvesting it in due season.

In how many different places these bright thoughts struck men (or more probably women) and were put to work, no one will ever know. Perhaps it all spread from one time and one place—though it is a little difficult to believe that the people now in America did not think of it for themselves. What does seem pretty certain, however, is that nobody in Europe thought of it for themselves. In the great river valleys of the East, the Indus, the Nile, the twin rivers Tigris and Euphrates, where everything was so lush and easy, people were progressing in enormous strides. But Europe had to wait to be *told* how to do it; from the East

she was going to be opened up, woken up. Some of the Kitchen Midden people and the like will be so wedded to their old ways that they will prefer to stay, as it were, both unopened and asleep. But that will not stop the process.

Does that mean then that people actually travelled across from the Middle East to spread the new ideas? Exactly that and nothing less. They have been traced doing it.

But why should they have wanted to? If anyone has created for himself a nice cosy little farm, why should he want to leave it?

The answer is that he probably doesn't. But his children may want to, just because there is no room for them. This new partnership with Nature is going to make life so much more easy that many more children will survive and families will grow on the whole much larger. Then this very prosperity creates its own problems. There are too many mouths, not enough to go round: someone must move on.

So move on they did, in all directions—though perhaps the way to the West, where the setting sun is mysteriously disappearing, always has an added attraction. Two main streams came across into Europe. One people, starting from Asia Minor and called the Danubians because they followed for a while the course of the Danube, passed through Germany and ended up around

Denmark; there they met the old fishing and fowling people, let them carry on for a long while in their own ways, and perhaps used them as slaves—kitchen maids out of Kitchen Middeners. The other people, sometimes called the Westerners, for they chose a western route through Spain and France, split up into two groups, to settle in two quite different countries and to quite different ways of life, “up” in one instance and “down” in the other. One of these countries was Britain and the other Switzerland. They came from the Delta of the Nile.

Now how do we know all that, how can we be so definite and categorical? The answer is in the one word: pottery.

If you have ever joined handicraft classes, metal work, patchwork quilting or what-not, you will often have been told: this is the “traditional” way of doing things, the traditional pattern. It was the same, is the same with primitive people, only more so. We have seen it already: they go on doing things in the same way, daring to make only slight innovations, making only slight alterations and those merely because of inaccurate copying. If then you can find traces of people’s pottery—and fortunately there is hardly anything that better resists decay—you can by the very finds trace that people, their movements if they move, their very slow changes of method, the place they

started from. Those two streams of people that were to enter into Europe as the first farmers had very distinct kinds of pottery, both copying a method of holding liquids that dated before pottery was thought of—that is another thing that always happens, something we did with the motor car, calling it first a “horseless carriage” and making it look like one. The Danubians copied gourds, which—hollowed out and dried of course—they had once used. The Westerners, tending their cattle on the Delta of the Nile, copied containers made of leather.

And it is this leather-copying pottery that was found in the ditches of our Windmill Hill encampment and beneath the waters of the lakes of Switzerland. For it was in Switzerland that they went down not up—down to the water’s edge and over it. It was here that were discovered the famous Swiss lake villages. And—because, by the curious chance that peaty mud will often preserve things better than anything else there is more known of these people than of their cousins at Windmill Hill—we will have a good look at them.

Up to the 1850s—the same old 1850s—nothing was known of them. Then a freak of climate, modern climate this time, revealed them. A winter phenomenally cold and dry—little snow and none of it melting—sent the water levels down to record depths. Accordingly the practical farmers around Lake Zürich thought they would take the oppor-

tunity of reclaiming a little land, before the mountain snows melted and the lakes filled up again. They did it by the method of building a wall at the water's edge and covering the newly exposed beach with rich alluvial mud dredged from beyond the wall.

But with the dredging they ran into trouble, and into discoveries. Just below the mud they came across a whole forest of timber piles driven in a foot or so apart, and stretching the length of the bay in a broad belt four hundred yards deep. The farmers no doubt swore, but persevered. Then with the half rotted timber came up all sorts of other objects. The farmers collected them and took them to their most knowledgeable friend, the village schoolmaster; he sent them to the Zürich Antiquarian Society. The Society acted promptly.

What the antiquarians found was startling and varied. They found fine chisels mounted in pieces of antler, flint knives mounted in wood, handled axes where the flint was ground and polished. They found bones of wild animals, deer and fox, and of domesticated animals, pig and sheep and cattle, and dog. And they found something new in the way of Stone Age remains, surprising in that they had survived but surprising too that they had ever existed: fragments of basketry, and matting, and netting, and coarse cloth. These people knew how to spin and weave. The finds caused a sensation, and scores of other lakes were dredged before it was too late. The results were often just as good.

The Westerners who reached Switzerland were in fact leading a good life. On shore they would have cleared enough of the forest to grow their crops and to keep their domestic animals. The pigs would root on the edge of the forest no doubt. Beyond were the wild deer, which were hunted to provide a variety to the diet, an addition to the larder. They ground their corn, these people, after they had harvested it and threshed it. They cooked it—perhaps already using yeast, that wonderful “leavening” that turns unappetizing Boy Scout’s “damper” into appetizing bread. The chance impression of grape pips in their pottery suggests that they may have brought with them the cultivation of the vine. Then out over the water they had their log huts, made from the felled trees and which they no doubt learnt to make with increasing skill. There they securely lived and their children happily played.\* Their one fear must have been of fire, of which several traces were found, for a completely wood-built township is prone to that danger in spite of being built out over water. Standing out in their boats we may imagine them, watching the flames rise, the men cursing, the women keeling laments, the children

\* In the East Indies villages are still built out over the water—and the children certainly have a fine time but also certainly have to learn to swim first. There have been similar villages in Britain, though they may have been over swamps rather than clear water. These were near Glastonbury in Somerset. But they existed in Iron Age times, not Stone.

crying. But one can always start again; and surely it was fun to start again, for no one except great-grandpapa is afraid of hard work, and the cattle are safe ashore, and someone has certainly seen to it that the dogs were saved. . . .

They carried on, these people in their Swiss lake villages, into the Bronze Age.

# 9

## HIGH LIVING, LOW THINKING

**A**T length we turn back to Britain's own first farmers, the folk who lived on a hill. We have seen where they came from and where another branch of their family had settled. There is one word of warning necessary here, however: do not imagine the Windmill Hill and the Lake Village peoples too closely related. By the time either had arrived at their final destination several generations, perhaps even several centuries, had passed. This was not a march or a crusade, not even a "forty years in the wilderness"; it was a slow filtering across, a moving-on when the land seemed to be becoming exhausted by not very knowledgeable farming methods or when the family seemed to be growing too big. And as they moved the people would mix with and to some extent intermarry with the men and women they met. They would end up, our two streams of immigrants, neither very like each other nor very like their Egyptian selves at the start. None the less their general racial type would probably remain domi-

nant. They were of the "Mediterranean" type, what have been called the "Dark Whites", olive-skinned, unhairy, small and slender people.

In contrast to the lake dwellers, there was no difficulty in realizing the existence of the later Stone Age people of Britain, for they had left their monuments and their camps for all to see. The difficulty was to sort these things out and into order—and it has taken most of the last hundred years in which to do it.

At the beginning a mistake was made.

There are more than a few places rather like Windmill Hill on the downs of southern and western England: grass-grown and half smoothed out remains of great concentric rings of earthworks, once upon a time glistening with the new chalk that had been thrown up by the primitive equivalent of the pick and the spade, the banks topped by wooden palisades. They looked like forts, these ancient British earthworks; some of them pretty obviously were forts, the magnificent effort on the heights above Dorchester for instance, called Maiden Castle. Some of them however had a strange feature: not just one entrance, elaborate and easy to guard as at Maiden Castle, but a series of gaps in the earthworks all the way round. Surely that was a strange way to defend yourself! Slowly the truth has been sorted out. Maiden Castle, for instance, certainly is a fort; it was actually defended against the Romans, at the end

of Britain's Iron Age. Or rather, the greater and bigger Maiden Castle is a fort. But the places with many entrances—of which, to make it more confusing for the struggling archæologists, there is one on the inside at Maiden Castle—are nothing of the sort. They are *camps*, what have been called Causewayed Camps. Windmill Hill is the typical causewayed camp.

And what on earth are the gaps, the causeways, for? The answer is simple. You led your cattle through them. Then presumably you put up wooden stockades to close the gaps, and you had your cattle "coralled".

What did you do then? You picnicked in the wide trench within the pierced circle of the bank, rigging up your shelter—fortunately it was again a rather specially dry spell of Europe's climate in which you were living—and you proceeded to have a sort of jamboree, a fair and merrymaking.

Perhaps that is putting it a little too simply. The point is that there has never been found any trace of *permanent* occupation of these Causewayed Camps. They were meeting places; that is the reasonable explanation, meeting places in the autumn when all the families around drove their cattle to the central spot for a yearly round-up. Men then no doubt branded their cattle, bargained over them, swopped them, and to some extent killed them off because there was not going to be enough winter feed to keep them all alive. And if

the people thus met, then naturally they had a feast, and perhaps a religious ceremony: feasts and ceremonies have always gone together if for no other reason than the good one of thanking whatever gods there be for what you are about to receive. Then, after the ceremony, the old ones would gossip, the younger ones make love, and the youngest play.\* Everybody had a good time, gathering the prehistoric equivalent of rosebuds, because after came the hard, lean winter.

That is the scene we may legitimately conjure up after the prosaic and careful excavations. These had to be careful because the picture was confused, and careful they were with such people as the "father" of modern British archæology, O. G. S. Crawford, taking a hand and a rich Scotsman, Alexander Keiller, spending his riches so that later people such as you and me who come to the museum that he set up at Avebury may not only understand but see for ourselves.

The Windmill Hill people, the land's first farmers, must have arrived about 2500 B.C.; by the beginning of what is called the "Second Millennium", that is to say 2000 to 1000 B.C., the thousand years in the middle of which the Stone Age turns to Bronze, they are well established. They never progressed perhaps so far as the Swiss lake dwellers—no sign of weaving, for instance—but they

\* At "Cowboys" perhaps, for that is what their fathers were. Not, unfortunately, on horseback, however.

certainly did not do so badly. The Avebury museum shows that—and so long as you know the significance of the things you look at there you will not find them in the least “as dry as dust”.

There are for instance a great number of flint scrapers. That sounds rather palæolithic and primitive. But they are very good scrapers, and they are going to be used to make good leather clothes—sewn with sinews no doubt and pinned together with the long bone pins that have been found. A curious looking comb has also been found: its inventor has cleverly taken advantage of the grain of the bone of an antler to form the tines of his comb, and he probably used it for removing the coarse hair from deerskin. If you are ever the proud possessor of a soft and supple leather coat you can reflect not only that a great deal of modern skill has gone into its making but also that much of that skill is something remarkably ancient. There are flint saws too, made by removing tiny chips from the sharp edge of a flake, at intervals as close as thirty-six to the inch. Some of these saws show a lustre from being used on wood; sometimes they were used to saw round an antler so that it could be broken off squarely; and antler is extremely tough. You can see this antler with its saw-marks; it has itself been used as a tool—a pick. The point of this you probably hammered into the hard chalk, and then levered.

There are chalk cups for drinking out of, and chalk

pendants to wear. Not exactly beautiful, those; but some have designs cut into them which certainly meant something to the wearer if they do not to us—the equivalent of “Mizpah” or “True to the Last” perhaps, or a charm against the evil eye or the spirit of the ancestor who won’t lie quiet although he has been given a very good barrow to lie in.

There is a lot of pottery, plain and practical, and round at the bottom—these too, like the mesolithic, were probably set on the embers among heated stones. You can see not only how they might have evolved from leather but also patternings round the rim that copy slavishly the appearance of leather, eyelets all the way round for instance for a non-existent string. We have already noticed the patterning from the ends of tiny bird bones. There is no use in that either—it was just pleasant to do, and to look at.

More practical are the querns. A quern is a flat stone, the equivalent of the nether mill stone, on which you grind your corn, using a smaller stone in your hand. The quern gets worn into the shape of a saucer, or a saddle. Here is evidence that crops were in fact grown as well as cattle herded. More definite evidence, and exactly in line with the grape pips of the lake-dwellers, is the imprint of stray grains of wheat and barley in the pottery. They are good sized grains.

Practical too are the other flints that we have

not yet mentioned, the hunting weapons, and the axes. There is shown no great evidence of hunting from the bones found in those everlasting circular picnic spots, the ditches of the causewayed camps; but this may be because the autumn slaughtering made hunting for the time being unnecessary. Hunting now was certainly only a secondary occupation, perhaps also already a sport. But you cannot obtain red deer antlers without hunting them; and the spear heads and arrow heads discovered are certainly beautiful pieces of flint workmanship.

The axes are polished, which is the new technique. A polished axe makes perhaps a less interesting exhibit in a museum than one that has been chipped only—it looks almost machine made—but it is a more efficient tool. These farmers would also be using polished stone hoes; indeed it may have been the natural polishing through use that first gave the idea: a smoother entry into the earth you are turning or the tree you are felling. Some modern enthusiast has been able to cut down a seven-inch diametered pine tree in five minutes with a neolithic polished axe.

The thing about these axes is that they were not made upon the spot from local stone but were a specialist job, made elsewhere. More about that later.

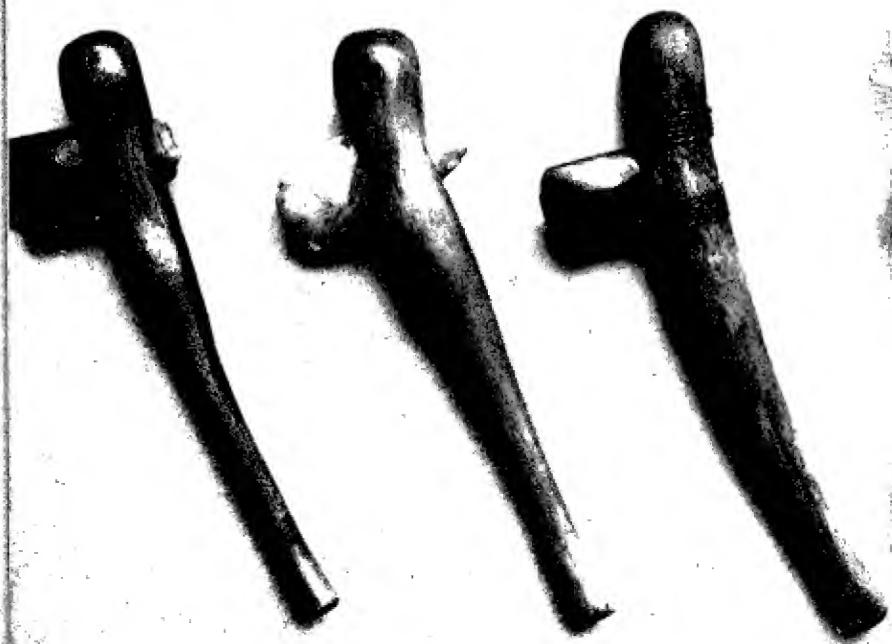
But these axes are important. If you wanted to give the neolithic farmer of Britain and Europe a trademark, a shoulder badge such as a soldier



Two of the great monumental stones at Avebury. (*Photo: Ministry of Works.*)



Tools for the first British farmers: a sickle for cutting the corn and axes for clearing the forest. (*Photos: British Museum.*)





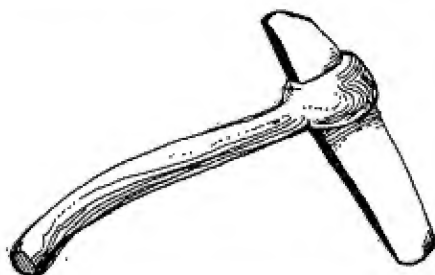
A megalithic patterning that went all round the world—British version.  
The all-seeing eyes? (Photos: *British Museum.*)





The modern Stone Age man; an Australian aborigine, with his shield and spear and spear-thrower. (*Photo: Australia House.*)

or a boy scout wears, you would undoubtedly have given him the sign of the axe. It is as much his by right as the miner's pick or the racing driver's crash helmet are theirs. For with it he has done what the farmer seldom has to do nowadays, clear



A neolithic polished flint axe

a way for himself before he has begun his job. In those days trees had crept even right up on to the hills. The farmer's first job was to clear a space for himself—if we imagine the hill tops as a monk's head, then he had to increase the size of the tonsure. Later when he had made the most of that bit of land, benefiting from the potash of the felled trees that he had burnt, he would need to move on and to make or increase another tonsure somewhere else. These neolithic farmers, in fact, these first inhabitants of Britain in any real numbers, were doing us, their descendants, a very real service and at the same time beginning to shape the countryside to the way in which we now

know it. It was a job that was really only taken up and finished in Saxon and mediæval times—when not only the chalk lands and gravel lands were tackled, but also the valleys of heavy clay.

And now one last find at Windmill Hill, this typical but by no means sole camp of the first farmers, which, however, has been excavated so thoroughly and so well. This will help to give us some idea of the thoughts and beliefs of these people, thoughts and beliefs that after a few short centuries are going to be fertilized, or muddled, or drastically altered—nobody quite knows which—by the later people who will come along with their passion for great stones and megalithic monuments. The find is of a skeleton of a dwarf, lying in a rather peculiar place.

These people usually buried their dead in the kind of long barrow which is known as an “unchambered” barrow, a simple long mound covering a mass burial. They certainly did not usually bury anyone in the outer ditch made when the original earthworks of a camp were thrown up. But on this occasion they did. It must be realized that to build a causeway camp, particularly so large a one as Windmill Hill, was a major effort. It was a communal effort too, the people working together under some leader, some authority. The site had no doubt been carefully chosen, perhaps after much talk and dispute. This camp was to be their

important meeting place. It was essential therefore that it should be blessed from the start, that it should start with good luck. Accordingly at its foundation they laid—they may have laid; we cannot tell for sure, but this is not the only example—not a foundation stone but a foundation sacrifice. In other words they killed a man, with ceremony, that his blood might bless this place. This Windmill man was a dwarf—you can see in the museum his pathetic, huddled skeleton, with stunted legs over-weighted by his great head. That he was a dwarf, something strange and queer, may have added to his potency. . . .

Now this is brutal and horrible. Let us look for a moment at the probable ways of thought of the New Stone Age people as we did of the Old. And first let us get out of our head too much of an idea of horror. Primitive people are ruthless for the general good, for the good of the tribe. They have to be—or it seems to them that they have to be. For they are up against a harsh world, and theirs is a continual struggle, at bad times to keep alive, in good times to live as the Bible puts it "more abundantly". They are going to do everything they can to work to those ends; and if on occasion the individual has to suffer, then bad luck for that individual!—a point of view that the unfortunate himself must often have philosophically accepted. The palæolithic person, in his efforts to control Nature and ensure the well-being of his tribe,

contented himself with magic and with ceremonies. Perhaps the individual did not often come to much harm—unless on occasion the finger-lopping or other drastic rite took an unfortunate turning. But now in neolithic times, men in a way were more dependent on the beneficence of Nature—in simple terms on good luck—just because they were beginning to control Nature. If there is a scarcity of game you can at least hunt a little more widely for it. But if you have bred your beasts and grown your crops, and your tribe has grown in numbers on the fat of the land, and then if there is a murrain on your beasts and blight on your crops—then indeed you are in a bad way and must do something very drastic about luck.

You probably made a human sacrifice.

You did that in particular for two other reasons. For one, as a superior neolithic person, a barbarian and not a savage, you were growing up to ideas about God. Or about gods. You believed that there were superior beings controlling Nature; and the thing to do was to importune them, propitiate them, please them and hold their attention in some drastic and dramatic way. The other reason is particular to your being a farmer, a man of seed time and harvest.

The seed is a dead thing. Yet put it in the ground, and behold in the spring it comes to life! That is magical. And it is *your* magic. You have done it—with the help of the gods of course. Again magic

comes into the picture, *influence*. Perhaps, you begin to believe, the fertility of the crops is bound up with the fertility of men, its death and rebirth bound up with human death and human rebirth. If then you enact a death and a rebirth, better still if you effect a death and rebirth, then you will have influenced the crops in the way they should go. The death is all too easy. The rebirth? Find a fine, *young* substitute for the man you have killed. Even your king or chief: who is likely to influence the fertility of crops and beasts better than the chief? Kill him off then, and substitute a newer, finer, younger chief, and you have done what you wanted to do, you have helped the tribe. . . .

This of course is an over-simplification again. But something of that way of thinking, and of acting, has been observed time and again in all very primitive farming communities. Sometimes, no doubt, it was not so drastic; perhaps in Britain it was never so drastic, under a sun cooler than that which shone down on those eastern Mediterranean lands from whence Europe's first farmers came. But we have seen that traditions change less than people. Lighter and happier thoughts must have existed too of course: these times probably saw the invention of many musical instruments for instance, both string and wind—you can make a good twin "pipe of Pan" from a couple of barley stalks. But at least it seems that the dark thoughts were those that more often got

organized into action. Priests and kings were appearing, important and forceful people who not only had ideas about life but who were determined that those ideas should be respected by the people. Religion was coming into the world, the British world included.

Perhaps religion is too grand a word. Symbolism and ceremony at any rate—with the whole tribe, the whole people, organized to give it effect. We are coming to that part of the Stone Age which leaves its mark not in the shape of little stones chipped and flaked to give us some clever thing that we can hold in our hand, but the enormous thing to which we stare up with some incomprehension and, even now, some awe. The Stone Age ends, as it were, with a bang, in an extraordinary obsession with, and a most spectacular manipulation of, giant stones.

In the remaining chapters we will have a look at these, and try to understand.

# 10

## THE GIANTS' GRAVES

*Beneath the hoary stone,  
under the earth-mound,  
on giant's work he gazed;  
the eternal cave held fast  
on props, with vaults of stone*

THAT is the Anglo-Saxon poem *Beowulf* telling of a search for heathen gold beneath a stone mound-chamber. There is a story too of King Harold once seeking shelter in one of these "giants' graves", and of how when his party came out two of them had lost their wits—"and that was a great hindrance to their journey".

So you see that we are a long way from the first people to explore the megalithic monuments: our delay in first visiting the Middle East and then exploring the minds of neolithic man can hardly be said to have made any difference. Even men such as Aubrey and Stukeley were in a sense too late: the tombs had often been robbed. Robbers, however, take away what is saleable and not necessarily what is of interest, and there was still

plenty to learn. It has taken, as we have said, a long time to reach the truth; and we are not sure that we have completely arrived there yet.

If, a little less than four thousand years ago, you could have been some sort of super eagle soaring above north-western Europe and with an eye improbably open not for lambs or rabbits but for giant stone monuments, you would have observed a strange thing. These megaliths were spread along the coast and up the river valleys. And they extended—*recognizably the same sort of thing*—right up from the Mediterranean—Greece and Malta—along the coasts of Portugal and Spain and France, touching the Channel Islands, around England, Ireland, Scotland, around Scandinavia too, and right up to the Orkney Islands.

The long barrows you would have spotted because they would at that time almost certainly have shown up white, either the white of the dug chalk that had been thrown back over the great stones beneath and had been kept clean and weeded, or white from stones specially thrown over to give the same effect. You would have recognized them too as monuments in the same tradition as the stone circles such as Avebury and Stonehenge, because there would originally have much more often been large stones standing about—you will remember that the West Kennett barrow has great standing stones at its entry. Most of these barrows once had a low wall of stones

running in a graceful heart-shaped curve about them. Some had standing stones set all the way round—as many, it has been suggested, as the hero buried within had killed of his enemies in battle.

These graves—for they *are* graves, though not of giants, at least not of physical giants—follow a basic pattern. What they always have is a grave that is covered by a protecting vault of great slabs of stone. There may be nothing more: these are the “dolmens” of this country, where either there was never any covering mound or the mound has been dug away or has disappeared. Usually there will be added a passage, short or long, and often further chambers as at West Kennet. Finally white chalk or stones will be heaped over and the guardian wall or circle of monoliths will be added.

And what has been found inside? If Beowulf found gold, he was lucky; no modern excavator has, or bronze either. What have been discovered are flint weapons, pottery, and lots of skeletons. The pottery is not always of the same kind, which is confusing. The skeletons *are*, sometimes quite recognizably, which is revealing.

Here are in fact family sepulchres, mausoleums; they are the Stone Age equivalent of the family tomb which we see so often in our churches. And, as with them, the family interred will be an important one—not everyone will get a chambered long barrow. Here lay the Chief. And when his wife died and his children died the tomb would be

opened up again with ceremony, the guardian stone removed, the new body squeezed in.

And "squeezed" is regretfully the right word. An untouched chamber of a long barrow not very far from Avebury, at Lanhill near Chippenham, was opened in 1909, and the scene uncovered gave a strange mixed picture of august ceremony and—squalor. One skeleton was separate and decently laid out. But the rest of the chamber was littered with bones in an apparent jumble; and the small opening, like an enlarged ship's porthole, must have made it very difficult to get in with the corpse at all, let alone with any dignity. Perhaps the last entrant was the most important; more probably the apparent disrespect for the earlier occupants arose from the common belief that the spirit of one's ancestors stays only with the corpse while it is a corpse. Actually these people had not paid entire disrespect for their ancestors' bones, for someone had tried to tidy up the place. However, bodies had not always received their correct heads or even heads their right jaws—either gruesome or amusing or pathetic as you choose to regard it. The skeletons when pieced rightly together did show a family likeness; some of them also showed traces of pretty bad rheumatism, and pretty bad teeth. . . .

But *why* these magnificent and elaborate sepulchres, *why* this obsession with great stones?

There is no doubt about the sepulchres being magnificent: the West Kennett barrow is 350 feet long; and another famous barrow, at New Grange near Dublin, has an inner chamber twenty feet high and a mound that even now rises to forty-five feet.\* Nevertheless, we must not go too fast or make unfounded assumptions. How do we know that it was a "people" at all, one set of people, that built these megalithic monuments all over the edges of Europe? The remarkable likeness from one to the other cannot be mere coincidence; there is likeness even in the patterns often cut into the stones, people copying and copying some picture or symbol, rather as the Azilian pebble-painters must have done, until it loses all its sense. On the other hand there is that curious fact that the pottery found in the chambers is by no means all of the same kind or tradition. At least one thing is clear: some tremendously powerful *influence* exists, some compelling incentive that makes people leave their pressing daily occupations to heave great stones about the landscape and build great mounds the size of cathedrals.

Some people or other *must* have travelled all along the Atlantic seaboard and up the rivers: there is no other way of communication, short of wireless which most certainly did not exist. But

\* Ireland, which was four-fifths under ice during the last Ice Age, is here just beginning to come into its own—which, with its gold, it does completely in the Bronze Age.

it may not have been a people in the sense of a whole tribe on the move such as the folk who came to Windmill Hill. Rather, the root cause of it all must have been a series of bands of adventurers, of little groups of people sailing up from the Mediterranean, settling down when they found a good spot, and proceeding to *convert* the local people to their religion.

Is that possible? "Missionaries" in 1900 B.C. as well as A.D. 1900? It is possible, that is if we do not interpret the words "religion" and "missionary" too narrowly. These people came from the Mediterranean perhaps from mixed motives, attacked by the everlasting itch for adventure or by the unconscionable pressure of parents—perhaps even it was the "thing to do" for the younger sons to set out, for the north. Perhaps there was already beginning in a small way the search for metals. We cannot tell. All we can say is that, whatever was the urge, the megalith builders must have held some very strong opinions and beliefs and must have been very good at persuading the people they came to live with to think in the ways in which they themselves thought.

But what on earth did they think? To answer that is not so easy. We may be sure that it had to be "good" in a practical way as well as a spiritual, that it was as we might say "a religion that paid". Was it perhaps no more than a variant of the old fertility cult, the influencing of Nature to do her

best by the example of human sacrifice and renewal, of death and rebirth? Or was it just ancestor worship, making a god of the Chief when he dies? Or was it something more?

We can only guess—basing our guesses, however, on real clues and not merely on beautiful and untrammelled flights of fancy. Perhaps in some ways it *was* ancestor worship. To build your Chief an inviolate chamber beneath a mound is rather like building him an inviolate chamber beneath a pyramid; and the Egyptians certainly put their pharoahs amongst the gods. It was rather like building him a house, a mansion—from which, though dead, he could continue to exert his beneficent influence. But there is another idea, supported by two facts. O. G. S. Crawford cast his eye further afield, as we in our humble way have done. It rested on another eye, a pair of enormous eyes in fact, with which ancient peoples in Asia Minor used to decorate the effigies of their goddess. Crawford showed incontestibly that this drawing of the “eye goddess”, of a face all eyes, carries through in a straight line, gradually becoming more stylized, more unrecognizable, to the scrolls and squiggles on the megalithic monuments of England and Ireland and elsewhere. And what does the all-seeing eye do? It looks down from the sky as does the sun, the sun which lights up and sees everything. The other fact? The great monuments, Avebury, Stonehenge, and others, are

oriented to the sun. Stonehenge, as everyone knows, points to the rising sun on midsummer day.

We must not make too much of all this. The sun-pointing could be no more than a practical mechanism, a way of fixing the calendar and so of knowing with some certainty when the cycle of seasons came round, a knowledge incidentally that with the moon's phases as the only obvious regulator is not so easy to come by as we moderns might imagine. But then primitive religion is always a mixture of the practical and the spiritual. Of one thing perhaps we may be certain. The religion of the megalithic "missionaries" does not look like an "earth" religion, the dark, often sacrifice-ridden belief of the world's first farmers. Somebody has said that all early religions are either earth or sky religions, and that the sky religions are the more cheerful and, as we would say, the more healthy: the religions of the nomad and the sailor. If you visit Stonehenge you are almost certain to hear some "knowledgeable" visitor holding forth about sacrifices on the "Altar" Stone. Shades of the Druids again! Human sacrifices at Stonehenge as the sun topped the horizon are a product of a fevered imagination—and of nothing else. . . .

After an introduction to yet another people who invaded the shores of Britain in Stone Age times, we will ourselves visit Stonehenge.

# 11

## THE BEAKER PEOPLE

**I**T is a day of high summer and sixteen hundred and fifty years will yet roll by before the birth of Christ. Along a way of the downs winds a slow procession.

It is 1650 B.C. and much is happening in the world. In America "barbarians" are hunting and growing maize. In the Middle East cities and kings and priests and writing have long existed: Babylon thrives, but Nineveh is not yet. Egypt, going through a time of trouble, is ruled by foreign kings, and has recently perhaps made much of a certain Jew called Joseph. In Asia Minor a new large nosed people called the Hittites are coming into power, and all around fresh northern tribes who speak an "Aryan" tongue are spreading southwards, into Persia, into India, into Greece. In the isle of Crete they are very sophisticated, and watch gymnastics with bulls in the arena and have no idea that in a mere eight generations their splendid Knossos will fall in ruin and in flames. . . .

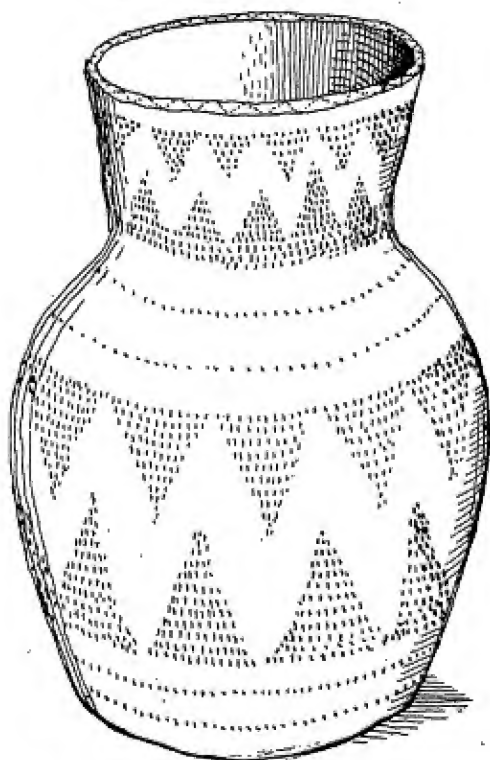
The people in the little procession are thinking

nothing of all this, rather naturally because they have never heard of it. They are thinking nothing of the home of their origin in Spain, for that was left behind probably about as many generations ago as the Minoans are yet distant from their destruction. They may, a few of the older ones, be thinking of things told them of the lands of the Rhine, where their great-great-grandfathers lived for a while. Most of them will have their minds no doubt on more practical things, for this is a practical procession: "How slow are the plodding burdened oxen!—have I still safe at my belt my beautiful coming-of-age present, glinting dagger of bronze?—when will father come back from his hunting foray, and will a fat buck have fallen to his arrow?—How I could do with a drink!"

This is a procession of the *Beaker People*. Does "beaker" conjure up an ugly cold glass receptacle for distilled water or hydrochloric acid in a laboratory? You will do better with Keats:

*O for a beaker full of the warm South,  
Full of the true, the blushful Hippocrene,  
With beaded bubbles winking at the brim  
And purple-stained mouth.*

This is the cold north, however, and you will have to forget the purple stain. The beakers of the Beaker People are lovely great mugs never-



The beaker that gave its name to a people

theless, fit to hold something worth drinking. They were sometimes left standing by the head of a man in his grave; and because they are such splendid and such distinctive things, and because, being imperishable, we have found them so often in this way, we have named the people after

them. The Beaker People were a round-headed folk, and they followed after the megalithic "missionaries".\*

The thing that is really important about these people is not their head-shape or their mugs but the fact that they carried about with them a certain amount of *bronze*.

Have we left the Stone Age, then? Hardly. The first small introduction of bronze into Britain does not end its Stone Age any more than the first hieroglyph scratched on a rock in Egypt made that country literate or the first steam plough or spinning jenny finished Britain's agricultural age in the eighteenth century—in fact rather less so, for these changes in the times of the barbarians were so very slow. Even the Beaker People themselves used flint, for their arrow heads, for instance, and for the wrist guard that they used when shooting their arrows, albeit this was tied by leather to studs of bronze or gold.† Nevertheless the Beaker

\* Most of the comers to these islands had so far been long-headed. Archaeologists make nearly as much use of shape of head as they do of pottery. Remember that long-headed does not mean long-faced. It refers to the shape of the head seen from above. If you are long-headed (*dolicho-cephalic* in scientific Greek) the width of your skull will be less than four-fifths of its length; if you are broad-headed (*brachy-cephalic*, beginning with the same two letters as "broad") the width will be greater than four-fifths. Shape of head is a goodish way of distinguishing races of peoples, but by no means the only way.

† It was from a barrow near Kellythorpe in Yorkshire that the true use of these frequently-appearing thin plaques of flint or bone was discovered: the skeleton had one that had fallen close by his wrist.

People were the introducers of bronze into Britain. They *began* the change. When they first arrived, and for some generations to come, the land was still enjoying the heyday of its neolithic way of life—a way that changed with no awful cataclysm or conquest but grew imperceptibly into the age of bronze.

The Beaker People made bronze and *traded* bronze, taking it to the neolithic farmers, in the shape of daggers, and trinkets, and occasionally a spearhead or perhaps a hoe or a pot or pan, always very much as a luxury. The farming people exchanged no doubt their produce, or sometimes, if they were lucky enough to have them, such rarities as jet in England and Scotland or amber in Denmark or in Ireland gold.

However, we are in danger of presenting a false picture, and that by sticking too much to *categories*: “the Beaker People did this, the Megalithic Builders that, the Windmill Hill people the other”. To some extent these people must have mixed, to a greater extent they must have borrowed each other’s ways as well as traded in each other’s wares. It is often said that the Beaker People built Avebury and the earlier Stonehenge. Perhaps they did. But it is safer, and more reasonable, to say that the people of England did so, having learnt the trick, or rather the need, having been imbued with the urge, by the *ideas* that invaded their country, insidiously but just as definitely as came the people,

broad-headed or otherwise, who kept on arriving through the generations.

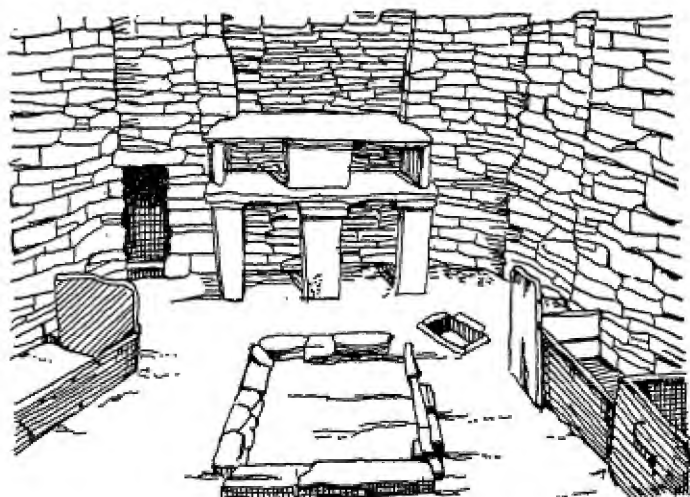
A general picture then of Neolithic Britain, before we return to what was their outstanding or at any rate their most permanent achievement, the building of the Great Stone monuments of Avebury and Stonehenge. First, it is a time of kind climate. Next, it is a land of forest, slowly being shorn. People live on its chalk downs and sandy heathlands and along its rivers and estuaries where a gravel bottom does not make it too damp or too difficult. There are many, many more people than in the Old Stone Age times and there is much movement of people. It is not only that the farmer moves on when he has exhausted his land or congregates for the yearly round-up. There is travelling going on, you might almost say commercial travelling. There are not only the "tinkers" with their rare and precious bronze and their beakers. There are what the archæologists, though naturally not their contemporaries, have called the Peterborough people. *Their* speciality is axes, stone axes. Now a flint axe strong enough to fell a tree is a hefty implement. It needs to be made from such good solid nodules of flint as are not easy to come by, that in fact exist most often below the surface of the chalk. An "industry" had therefore begun, flint mining. The neolithic flint mines have been discovered in Sussex and, most

spectacularly, in Norfolk, at a spot called Grimes Graves. Here can still be seen and explored wonderful excavations in the chalk, shafts going down as far as forty feet, galleries in which it is quite possible to get lost. Here, using feeble little lamps of a wick floating in fat in a dish of chalk, using shoulder blades of oxen to act as shovels and antler picks just such as were found at Windmill Hill, the first British miners dug out the highly prized nodules, and on the surface and on the spot fashioned from them axes with a skill they had learnt from their forefathers. It was a skill perhaps going right back to mesolithic, even palæolithic times: the Peterborough people are thought to be descendants from the fishers and fowlers who were the last people to cross to Britain before the seas closed in.

There was also another industry. Axes were made by specialists not only from flints that were mined, but also from harder igneous rock such as the palæolithic person would hardly have tried to use. The raw material was carefully chosen from the mountain sides of the Lake District, for instance, or of Penmaenmawr in North Wales or of Prescelly in the south of that mountainous land—the last name we shall shortly meet again. Here was special stone, regarded perhaps as magic stone, for there has always been a tendency to regard the superlatively good weapon as a magic weapon—Sword Excalibur and the like—possibly as a

way of excusing your own lack of success against it: "it wasn't fair!"

Finally in this general picture, one other set of people that may also have been descended from the pre-neolithic inhabitants, and this time living right up in the Isles of Orkney. They are the little community of Skara Brae, who are famous for the houses they built. You can see them in the



The stone furniture of Skara Brae

picture: there are bunks, seats, table, store cupboard. These houses and their furniture have survived simply because they were made entirely of stone; and they were so made because there was nothing else with which to make them. Even better houses were surely being made at this time of wood

—in fact at Haldon Hill near Exeter, thanks to those less obvious but quite distinct traces that decayed wood can leave, there has been reconstructed (“on paper” that is) a typical farmhouse of the Windmill Hill people, and it is a thatched and gabled affair of two rooms, with a cooking-place of baked clay and a total length of twenty feet.

That may have been exceptional of course; perhaps as yet homes and houses had not often progressed very far. What is really striking about Neolithic Britain is the travelling and the trade. Some of it was no doubt by water, from river mouth to river mouth and up the rivers as far as the small boats\* would go. But there was also the dry-land ways along the cleared hill-tops. These foreshadow the famous “green ways” of later times, the Icknield Way (roughly Avebury to Grimes Graves) and the rest. There were not so many of them, they were of course in no way made-up roads; but they were there and they formed a pattern that had the area of Avebury and Stonehenge as its hub and centre.

So much for a general picture of Neolithic Britain, at the peak of its prosperity and towards

\* Probably dug out from the solid for river work, and made of hides stretched over a wooden or withy framework for going to sea. The boat of “sewn” planks was to come soon. And with boats must have come a technical “boat” vocabulary. Indeed all the new neolithic activities, farming not least, must have increased the New Stone Age man’s vocabulary—and so developed his mind.

the end of its time. It must surely have been a pleasant and prosperous land: otherwise people would not have come to it from more advanced parts of the world while equally the people already there would have been more eager to change out of their Stone Age lives. The same sort of thing, curiously enough, was to happen in the Bronze Age, which was to be equally content to last for about a whole thousand years while the Assyrian and Egyptian and Jewish and Greek worlds were to go on their way.

But meanwhile we have left our Beaker young man growing hotter and hotter and longing more and more for a halt and a drink.

We can with luck give that scene a happy ending. Serious archæologists have seriously suggested that the Beaker People brought something else with them besides the first bronze. They may have brought beer. The cheering principle of fermentation was certainly known in the world by 1650 B.C. Barley was grown. And as we have said, such magnificent pots deserve something more interesting than water inside them, and especially when they were left by the mouths of dead men to refresh them in their journey to the other world. We can leave our young man with his coming-of-age dagger then, if not with purple stained mouth at least with froth on his lips. For his sake we will hope our imagination has not run away with us.

# 12

## STONES TO STONEHENGE

THERE would have been other processions in that year 1650 B.C., and in every succeeding year while the influence of the megalith builders lasted: one in the spring, when the miracle of Nature's rebirth so pleased and impassioned the people, one at mid-winter perhaps, when the sun seemed so low and discouraged; one on Midsummer Day when the Lord of the Skies had risen to his fullest majesty.

Can we envisage it? It is a dangerous thing to do—the archæologist must keep his imagination on a tight rein, or a low throttle, if it is not to run away with him. But if we stick to the equivalent of a thirty mile an hour limit we can come to little harm. The procession could well be using that avenue of giant stones that led from the great circle of Avebury to "The Sanctuary", where there must have stood a curious wooden building circular in shape but with an open hole in its centre. Or it might be using the wide sweep that leads up from the River Avon to Stonehenge—

no big stones here, but a double ditch and bank, the traces of which can still be seen in an aerial photograph. We will take this avenue for our scene.

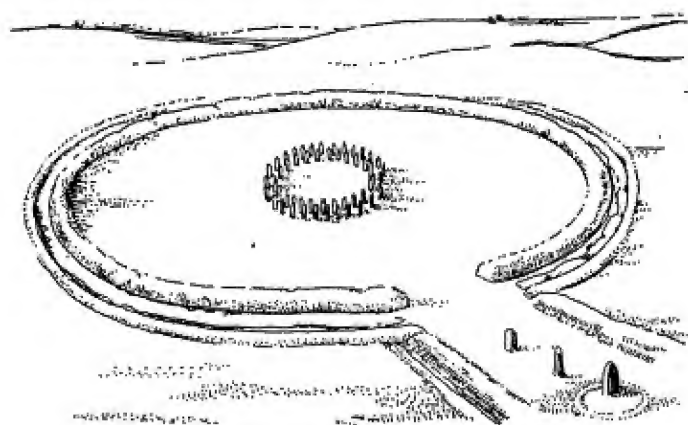
The people line the course to watch. They are of different types, some tall and fair, more of them dark and slight. They are not shaggy savages clad with the skins of wild beasts. The children may be naked if it is midsummer, but the men and women will have leather kilts, or even trousers, and leather skirts, with perhaps that rather swaggering Beaker People's cloak that does up by one button at the throat. The beards will be trimmed, the young women's hair will be elaborately done; many will wear necklaces and ear-rings of chalk or bone, of dog's teeth perhaps, even a few, a lucky few, something of bronze or gold. They talk, and keep their children in order, and wait by the procession.

And the procession itself? But no, it is too dangerous! We simply do not know. Not white-clad Druids, at any rate. However, surely priests of some sort, leading some animal—*not* human—to sacrifice. The priest might have feathers in his hair. A strange and derogatory sort of idea? But neolithic rock paintings in southern Spain show men with feather head-dresses. And one near-certainty at least. Some in the procession are carrying a symbol of the sun. Later it would very likely be drawn in a chariot; but chariots have not arrived in Britain yet. More likely it would be shown borne

in a boat: held aloft will be the ship that carries it across the ocean of the heavens, to sink mysteriously in the west but always—always, that is, if you duly worshipped and helped it—appearing magically at the next dawn in the east. . . .

One final imagining we will allow ourselves. The curving avenue up from the river to Stonehenge might in 1650 B.C. have been in use for the very first time. It is not so impressive an avenue as at Avebury. But it might have had a special significance at the moment. The people lining it might have been saying, in their own language: "The Prescelly Stones, this way came the Prescelly Stones, they are going to use the Prescelly Stones!"

There has not been much said in this book about Stonehenge, which is beyond doubt Britain's



Reconstruction of the Beaker People's Stonehenge

greatest prehistoric monument. The reason is that Stonehenge as we now know it was built in the Bronze Age proper.

But there were three Stonehenges.\* The first is dated by the radio-active carbon method at about 1850 B.C., a little while after the Windmill Hill people had arrived. It consisted of no more than a circular bank and ditch, within that a circle of holes in the ground, put there for a purpose no one can now guess, and three stones at the entrance. The third and last stage had as its main feature a horseshoe and an outer circle of the huge trilithons the remains of which you can now see. These were dragged from the downs around Avebury, and the date is about 1500 B.C. It is the second Stonehenge that was built at the time we are now considering, 1650 B.C. The avenue was created; and within the wide circle of the bank and ditch was placed a double circle of shaped and dressed stones of a bluish colour, each pair capped perhaps by an arch-stone or lintel, a sort of smaller edition in fact of the final plan. And these slabs of "blue stone", each weighing about four tons, are of a rock that can be found *nowhere* but in the Welsh mountains of Prescelly.

How were any of these great slabs of stone, here or elsewhere, moved and manœuvred into place?

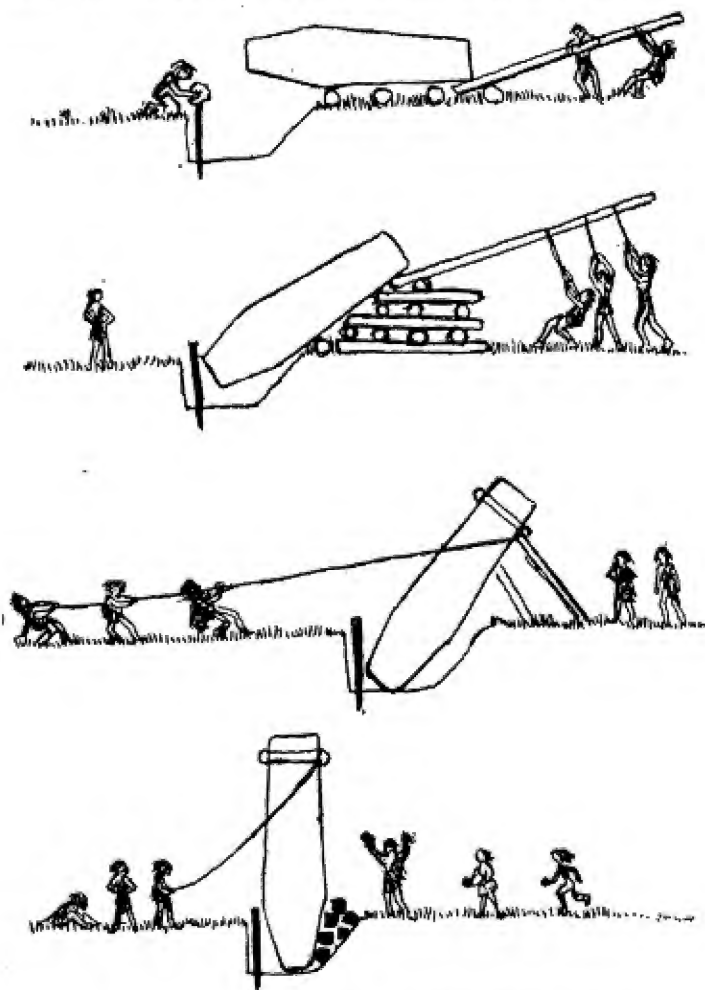
\* R. J. C. Atkinson's *Stonehenge* will tell you more; also a little book, *Stonehenge and Avebury*, published by H.M. Stationery Office.

The answer is best given by illustrations, and so here they are. The men of the Stone Age had really only three tools for the job: their wit and cunning; the stoutness of wood and of leather thongs; and the principle of the lever. We can deduce this from common sense and from traces of the wood they used. They used thick wooden rollers, tree trunks in fact, on which to move the stones. They used rather more slender tree trunks as props to support the stone slab as it was slowly raised. They used wooden stakes—they would get crushed in the process but that would not matter—to guide the foot of the stone into the bed prepared for it.

Now all this is wonderful enough. But the blue stones were brought all the way from Wales, a distance of about 150 miles. They must have been dragged to the coast, sailed on rafts around the headland, then right up the Bristol Channel, up the Somerset Avon, across some ten miles of land again, and down the Wiltshire Avon\* and lastly along that curved avenue which we have imagined lined by the waiting crowd.

It was an utterly amazing feat, an extraordinary thing to do: the Prescelly stone must have been held very precious indeed. Perhaps there were standing stones somewhere in the Prescelly Mountains that for some reason had earned a great reputation of holiness? Or possibly the stone's

\* Significant, perhaps, that these two rivers both retain their ancient name.



How the great monoliths must have been raised

virtue lay in the fact that, as we know, it made axes of a special virtue? That last is not at all impossible: the axe, in this and the bronze age that was to follow, was always a great symbol of power—there is an image of one carved on an upright of the last Stonehenge.

And that is as far as we can take it, as far as we can attempt to understand the motive for the strange journey of the Prescelly Stones. One thing we can understand: the axe really was the "power" behind the men of the last of the Stone Age, for it enabled them to clear the forest and grow their crops. We can even understand a little the pre-occupation of these men with stone: a huge upright stone is indeed impressive and if stone has always been the raw material for all your power and your tools and your success—then you will be impressed, and superabundantly so. . . .

For the rest, do not think these people mad in their strange impractical efforts! Mistaken they were perhaps, and certainly not thinking as we think. But their aims were not material, were not personal, were not petty. The people of Windmill Hill at least allowed themselves to be organized for a communal effort, the effort to make a camp and meeting place for the good of them all. The people of two or three centuries later, whoever they were, allowed themselves to be organized to make something different, the great religious

monuments, the "mausoleums" of the barrows, the "temples" of the stone circles. They were willing to sacrifice their time and their strength, and perhaps sometimes their lives, for an idea and an ideal.

Think of that when you visit Avebury, or Stonehenge, or the stone circles of Anglesey or Orkney, or the dolmens or barrows of Wales and the West Country. Think of that and salute the Stone Age men.

And if anyone asks you why you salute, then tell them. And add a passing tribute if you like to all the hard workers who have unearthed the story for you.



*"A book that is shut is but a block"*

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